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► The recovery effort in full swing following the tragic crash of JL123 near Mount Osutaka in Japan in August 1985 AFP via Getty Images



Given my line of work, I've had an awful lot of conversations about Boeing recently. Friends, family and fellow enthusiasts have twigged I know more about aviation than is healthy and have genuine concerns about what's going to get them from airside to poolside when they next go on holiday. While it initially starts as a conversation about aircraft – which I can talk about until the cows come home – it tends to descend into one of corporate culture, a subject far beyond the peripheries of my comfort zone. What I know about turning things around at Renton, Boeing Field and South Charleston is well above my pay grade.

An accident is never something that an airline or aircraft manufacturer wants to wake up to. When the worst does happen, many will be desperate to get the incident in the rearview mirror as quickly as possible. So it might surprise you to learn that Japan Airlines (JAL) has a museum dedicated to what is undoubtedly the darkest day in its history: August 12, 1985, when a Boeing 747SR flying as JL123 crashed with the loss of 520 of the 524 on board.

The 2006 opening of JAL's Safety Promotion

Center (SPC) was a profound and contritious move for an airline. Not only does it acknowledge the worst single aircraft accident in aviation history, but it serves as a reminder of an airline's commitment to safety, its employees and its customers.

The juxtaposition of hurriedly scribbled final messages from terrified passengers among personal belongings and the twisted, mangled wreckage of the aircraft on which they lost their lives provides a stark, confrontational reminder of just how important a role is played by everyone in the aviation industry. It would be one thing for JAL to open such a facility as a token gesture to its past and to those affected by the loss of JL123, however the carrier ensures all its employees visit the SPC as well as conducting tours for its work force to visit the crash site. Just editing Andreas Spaeth's feature about the SPC was sufficient to provoke a visceral response in me.

I began wondering if Boeing has a similar facility promoting safety and highlighting the responsibility it and its employees have in ensuring the wellbeing of those who fly on its products. It turns out the US-based manufacturer does – at its Everett plant, which

opened in September 2017 – and it contains information and exhibits relating to JL123.

In the near two decades since JAL opened the doors to its SPC, it has only had one other accident – an incident involving an Airbus A350-900 at Tokyo Haneda at the start of 2024, in which no one onboard the jet was killed. While the SPC cannot solely account for JAL's recent exemplary safety record, one cannot deny that it, along with visits to the crash site, will have had some influence on the airline's staff's sense of responsibility.

Once can't help but feel that Boeing's own SPC came a little too late to reaffirm the importance of safety – and, by extension, quality control – to its staff. Lion Air flight 610 – the first domino to fall in the MAX line – crashed just 13 months after the manufacturer opened the doors to its Everett facility.

What do you think? Are these facilities effective, thought-provoking means of raising the profile of aviation safety or should airlines and airframers look to the future rather than dwell on the past? I hope you enjoy this issue.

Martin

Martin Needham, Editor

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On the cover

A BA Cityflyer Embraer E190 is framed against Canary Wharf as it departs from London City Airport AirTeamImages.com/Matthieu Douhaire

Baby Boom flies

BOOM SUPERSONIC conducted the first test flight of its XB-1 technology demonstrator, N990XB (c/n 001), from the Mojave Air and Space Port in California on March 22, 2024.

The XB-1 is the foundation for the design and development of Boom's planned Overture supersonic airliner, which the company aims to introduce to service by the end of the decade. According to the company, the XB-1 "leverages state-of-the-art technologies to enable efficient supersonic flight, including carbon fiber composites, advanced avionics, digitally optimised aerodynamics and an advanced supersonic propulsion system."

The XB-1 maiden flight was flown by Boom's chief test pilot Bill 'Doc' Shoemaker, with Tristan 'Geppetto' Brandenburg flying the T-38 chase

aircraft that monitored it in the air. The first flight from Mojave took place in Special Use Airspace, designated the R-2508 Complex, which encompasses all the airspace used and managed by Naval Air Weapons Station China Lake, the National Training Center at Fort Irwin and Edwards Air Force Base. Boom CEO Blake Scholl noted: "XB-1 took flight in the same hallowed airspace where the Bell X-1 first broke the sound barrier in 1947. I've been looking forward to this flight since founding Boom in 2014, and it marks the most significant milestone yet on our path to bring supersonic travel to passengers worldwide."

Ric Parker, chairman of the Singapore Aerospace Programme, former CTO at Rolls-Royce CTO and a member of the Boom Advisory Council, commented: "Boom Supersonic is the first civil business

entity to create its own X-plane, a supersonic demonstrator. This milestone is on the critical path to deliver Overture, the first supersonic transport aircraft to enter service in over half-a-century. It is such an exciting time to be involved."

Mike Bannister, former chief pilot of Concorde at British Airways, said: "I've been waiting over 20 years for an environmentally friendly successor to Concorde and XB-1's first flight is a major landmark towards my dreams being realised. When I last flew Concorde in 2003, I knew that this day would come. The first flight of the XB-1 supersonic demonstrator is a significant achievement toward making sustainable supersonic flight a reality, aboard Overture – my number one choice as the successor to Concorde."



Boom Supersonic

Boeing boss to stand down

BOEING ANNOUNCED a number of senior management changes in March 2024. Boeing CEO David Calhoun is to stand down at the end of 2024, while Boeing Commercial Airplanes' CEO Stan Deal has retired and been succeeded by chief operating officer Stephanie Pope, effective immediately.

The changes occur as Boeing faces heightened scrutiny from both the US Federal Aviation Administration (FAA) and airline customers over

quality-control and manufacturing issues surrounding the 737 MAX, prompted by the January 5, 2024, incident involving a Boeing 737-9 flying Alaska Airlines Flight 1282, where a left mid-cabin door plug blew out.

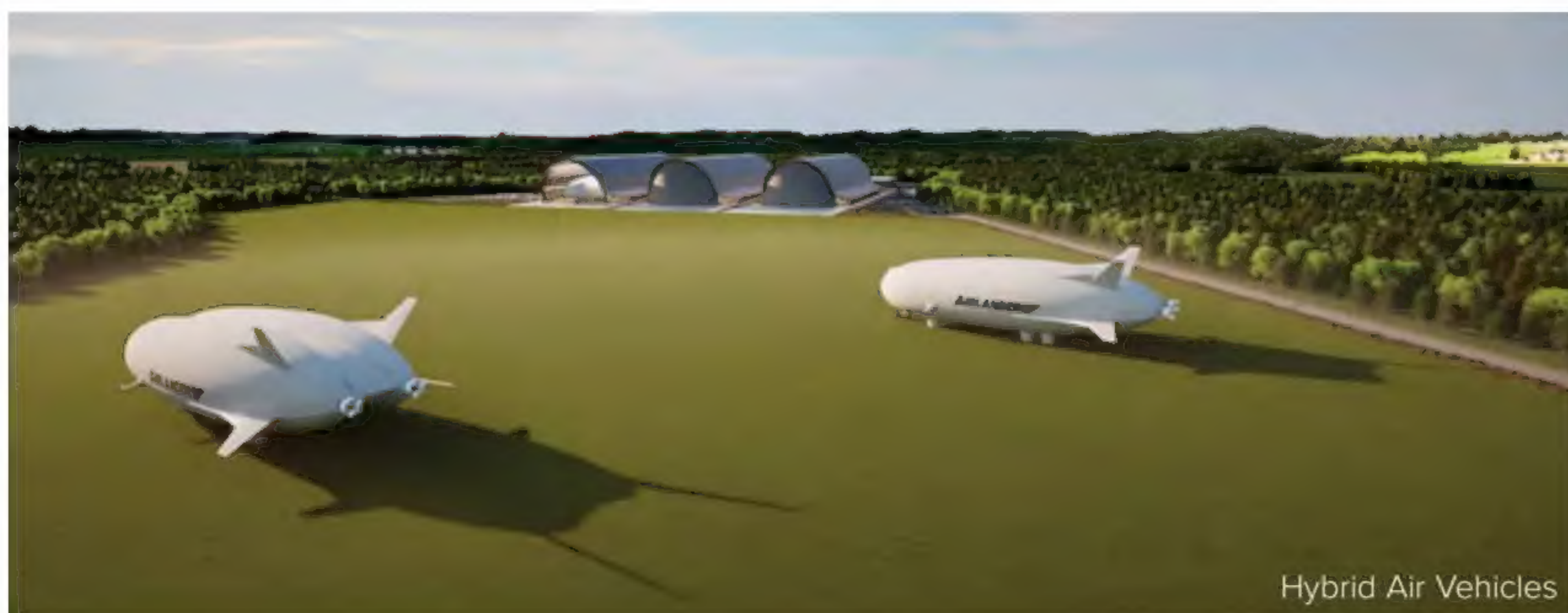
A March 2024 FAA statement said a six-week audit of Boeing processes found "multiple instances" of manufacturing quality control issues. In a meeting

at FAA Headquarters in Washington DC, FAA administrator Mike Whitaker informed Boeing's CEO and other senior leaders that Boeing "must address

the audit's findings as part of its comprehensive corrective action plan to fix systemic quality-control issues." The FAA has given Boeing 90 days to outline its action plan.



Bonny result for Donny



Hybrid Air Vehicles

HYBRID AIR Vehicles has announced it intends to locate the factory and production programme for its Airlander 10 aircraft at Carcroft Common outside Doncaster. The aim is to establish Carcroft Common as a hub for advanced manufacturing and sustainable aviation in South Yorkshire, creating more than 1,200 new jobs and thriving supply chains.

The company will acquire the freehold on a 50-hectare site under an agreement with the City of Doncaster Council and “initiate activities leading towards a planning application, working with the local community and other stakeholders as part of the planning and preparation process. Subject to planning approval, Hybrid Air Vehicles will develop new flagship facilities

for Airlander 10’s production, testing and certification operations, capable of producing up to 24 aircraft per year at the site. It will house cutting-edge aerospace production equipment, such as new assembly lines for Airlander’s composite-based airframe, propulsion systems and electrical and avionics systems.”

Hybrid Air Vehicles is designing Airlander 10 to be a new type of ultra-low emissions aircraft capable of carrying 100 passengers, or ten tonnes of payload. The first aircraft is set to enter service from 2028, with Air Nostrum Group as the launch airline customer.

In February 2024, the City of Doncaster Council and South Yorkshire Mayoral Combined Authority published plans for South Yorkshire Airport City, re-opening Doncaster Sheffield Airport alongside a focus on new green advanced manufacturing and sustainable industry.

Asiana bids farewell to the Queen

ASIANA AIRLINES has drawn to a close more than a quarter-of-a-century of passenger operations with the Boeing 747-400. The carrier’s final 747 service, operated by HL7428 (c/n 28552), connected its Seoul/Incheon hub with Taipei as OZ712 on March 25. The move leaves the airline with 10 freighter 747s, while Korean Air, with which it is set to merge subject to US Department of Justice approval, flies nine 747-8Is, seven 747-8Fs and four 747-400Fs.



AirTeamImages.com/Ido Wachtel

RJ accepts maiden P2F



AirTeamImages.com/Anshul Kadam

ROYAL JORDANIAN Airlines boosted its cargo capabilities in March 2024 when it introduced a new A321-200PF converted freighter.

The medium-haul aircraft, JY-RAZ (c/n 3926), can carry 14 pallet/container positions on the main deck and ten on the

lower-deck. Total payload is 28 tonnes and range is around 1,900nm. It is the Gulf carrier’s first freighter since it phased out its last A310-300, JY-AGQ, in July 2023.

The A321 leased by Royal Jordanian from BBAM was built in 2009 and previously flew with BMI British Midland and British

Airways (BA) as G-MEDU. BA withdrew the jet from use in 2020 and, following storage at Glasgow and Madrid, it was flown to Singapore in 2023 for freighter conversion by the Elbe Flugzeugwerke/ST Engineering joint venture. The aircraft arrived in Amman on March 21 after transiting from Singapore via Mumbai and Abu Dhabi.

The new freighter is part of Royal Jordanian’s wider plan to strengthen its presence in the region, with a second A321P2F set to be delivered next year. Additionally, the airline has opened a new cargo terminal in Amman and the A321 is part of a wider fleet renewal that will see further A320/A321neo aircraft, Embraer E190-E2/E195-E2 regional jets and Boeing 787-9s join the carrier.

Shed back from the dead?



Flickr Commons/John Murphy

HALF-A-century after the Short 330 undertook its first flight in August 1974, production of the charismatic twin turboprop could resume. De Havilland Aircraft of Canada is reviewing the potential market for a modernised version of the Short C-23A Sherpa cargo aircraft, the freighter variant of the 330.

The Sherpa is a small military transport aircraft designed to operate from unpaved runways, offering a short take-off and landing capability. First flown in August 1984, the aircraft was an evolution of the Short 330 regional turboprop. The US military designation for the

variant was C-23A, while C-23B was for the Sherpa derivative of the 330's larger stablemate, the Short 360.

Belfast-based Short Brothers developed the 330/360 from the earlier Skyvan. The 330 first flew on August 22, 1974, and the 360 on June 1, 1981. Short Brothers built just over 200 examples of the 330/360 line, including 65 Sherpas produced from 1984 to 1990. The Skyvan was affectionately known as the 'Flying Shoebox' owing to its boxy construction, while the 330 and 360 earned the nickname 'Shed' for similar reasons.

The USAF and US Army both operated

the type, with C-23s seeing service in Iraq fulfilling intra-theatre transport requirements. Several US Army Sherpas were reportedly modified with intelligence-gathering equipment for use in Iraq. Sherpas also equipped some US Air National Guard units. The type was retired from US military service in 2014.

The Sherpa had a cabin measuring 6.5ft wide, 6.5ft high and 29ft long, offering a 1,230ft³ cargo volume and 8,000lb payload. Its capacity, together with the STOL performance and unpaved-runway capability, enabled it to offer a useful niche transport option for the military.

Shortly before we closed for press, *Aviation Week* quoted a De Havilland Canada statement: "We are in the initial stages of reviewing the current and future potential of the Sherpa aircraft. We will engage the aviation community to review potential applications in the coming months. Our focus will be to look at the possibilities of modernising the existing aircraft design."

De Havilland Canada parent company Longview Aviation Capital took on the Short 330/360 type certificates (including those of the Sherpa) when it acquired parts of the Bombardier operation in Northern Ireland. Bombardier itself took on those assets when it acquired Short Brothers in 1989.

Satellite ferries

THE USEFUL role of large cargo aircraft in providing highly specialised transport has been illustrated in recent weeks, when both Antonov An-124 and Airbus Beluga aircraft positioned satellites to their launch sites.

Antonov Airlines An-124 transported the Airbus-built EarthCARE satellite from Munich to Vandenberg Air Force Base in California, while Airbus Transport International used a BelugaST to fly the EUTELSAT 36D geostationary telecommunications satellite from Toulouse in France to the Kennedy Space Center in Florida. EUTELSAT 36D was due for launch from Kennedy later in March 2024, with the EarthCARE scheduled to depart from Vandenberg in May 2024. Both satellites will be launched by SpaceX Falcon 9 rockets.

EUTELSAT 36D is part of a constellation of satellites used for telecommunications and TV broadcasting. EarthCARE (Earth Clouds,

Aerosols and Radiation Explorer) is a joint European Space Agency/Japan Aerospace Exploration Agency satellite designed to investigate the impact of clouds and aerosols on Earth's atmosphere.

With the new A330-based BelugaXL having replaced the BelugaST transporting Airbus sub-assemblies, the older ST (based

on the A300-600) is now fully available for outsized freight transport services globally. The latest Beluga flight was the third time the type has flown a satellite into Kennedy in the last 18 months. Similarly, Antonov Airlines An-124s are now regular visitors to the US, having recently delivered satellites produced in Spain and Turkey.



Munich Airport

Air France bulks up for summer games



AIR FRANCE is expanding its global network in time for the 2024 Olympic and Paralympic Games. The French flag carrier said long-haul capacity will grow by 9%, with flights serving 85 destinations. The airline is resuming connections to Minneapolis, Minnesota, with one daily

link, and inaugurating a new direct service between Paris/Charles de Gaulle and Phoenix, Arizona, three times a week using a Boeing 787-9. It is also extending its direct service to Raleigh/Durham, North Carolina, which it inaugurated in winter 2023, upping the number of weekly

flights from three to seven during the winter season.

Outside of North America, Air France is extending its daily Abu Dhabi service through the summer of 2024, resuming the Dar es Salam (Tanzania) service and putting on more flights to Japan, including two daily services between Charles de Gaulle and Tokyo/Haneda, in addition to its service to Tokyo/Narita with four flights a week. The carrier is also increasing frequencies on African and Indian Ocean routes, including to Cotonou (Benin) and Antananarivo (Madagascar). There will be two daily flights to Cameroon, shared between Yaoundé and Douala. Within Europe, three new routes will be introduced to Verona (Italy), Harstad/Narvik (Norway) and Kalamata (Greece).

Delivery delays hit Ryanair

RYANAIR EXPECTS to receive just 40 of the 57 planned Boeing 737 MAX 8-200 aircraft that were due to be delivered before the summer. The low-cost carrier's current schedule was based on receiving a minimum of 50 new 737s, and it says that, because of the delivery delays, it will now have to reduce its schedule by approximately ten aircraft lines of flying for the peak months of July, August and September. The airline said this would result in a reduction in frequencies on existing routes rather than cutting new services,

and that it had already implemented these cuts at some bases, including Dublin, Milan/Malpensa, Warsaw/Modlin and four Portuguese airports. The summer 2024 schedule changes will now reduce traffic in the financial year to March 2025 to just under 200m passengers compared to the original target of 205m.

Michael O'Leary, Ryanair's Group CEO, said: "We are very disappointed at these latest delivery delays, but we continue to work with Boeing to maximise the number of new 737 aircraft we receive by the end of June, which we can confidently release

for sale to customers during the [summer 2024] peak. We will now work with Boeing to take delayed aircraft deliveries during August and September 2024 to help Boeing reduce their delivery backlog."

With a 583-strong fleet, Ryanair currently operates 145 737 MAX 8-200s, the first of which it received in June 2021. A high-density version of the MAX 8, the variant can accommodate up to 200 passengers in a single-class configuration. Ryanair's examples are set up with 197 seats.

Ethiopian buys 777X

ETHIOPIAN AIRLINES is to purchase eight Boeing 777-9s, with options for up to 12 more. The carrier, which is pursuing a multi-hub strategy through a base in Lomé, Togo, in addition to its main hub in Addis Ababa, Ethiopia, is the first 777X customer in Africa. The announcement builds on a 2023 order for 11 787 Dreamliners and 20 737 MAX aircraft.

Ethiopian's CEO Mesfin Tasew said: "We are pleased to continue setting the trend in African aviation by adopting cutting-edge technologies to enhance our services and customer satisfaction." The flag carrier's current fleet includes 19 787-8s, ten 787-9s, six 777-200s, four 777-300ERs, ten 777Fs, three 767-300s, three 737-700s, 11



737-800s, 18 737-8s, as well as 20 Airbus A350-900s and 31 De Havilland Canada DHC-8-400s.

Boeing forecasts Africa's annual air traffic

growth to be more than 7% through to 2042, the third-highest regional growth rate globally and above the global average of 6%.

CityAirbus unveiled



AIRBUS HAS publicly presented its CityAirbus NextGen prototype. The two-tonne rotary-wing aircraft with a span of approximately 12 metres is being developed to have an 80km range and 120m/h cruise speed. It is Airbus's entry into the advanced air mobility arena and the company says it will be "perfectly suited for operations in major cities for a variety of missions."

The aircraft was unveiled at the new CityAirbus test centre in Donauwörth, Germany, which will be dedicated to testing systems for electric vertical takeoff and landing vehicles (eVTOLs). The centre began its operations with the CityAirbus NextGen with power-on in December 2023 and it will be now used for the remaining tests required before the prototype's maiden flight later in the year.

AA's short-haul shopping spree

AMERICAN AIRLINES (AA) has announced orders for 260 new aircraft, including 85 Airbus A321neos, 85 Boeing 737 MAX 10s and 90 Embraer E175s. The deals also include options and purchase rights for an additional 193 airframes. As part of the Boeing commitment, American has upgauged 30 existing MAX 8 orders to the larger -10 variant.

AA CEO Robert Isom said: "Over the past decade, we have invested heavily to modernise and simplify our fleet, which

is the largest and youngest among US network carriers. These latest orders will continue to fuel our fleet with newer, more efficient aircraft so that we can continue to deliver the best network and record-setting operational reliability for our customers."

With this announcement, AA has 440 aircraft on order. The carrier is focused on bringing larger regional airliners into its roster and expects to retire all of its 50-seat single-class regional jets by the end of the decade. It will also be retrofitting its A319 and A320 aircraft from 2025,

outfitting the two types with more premium seats to include capacity for 12 and 16 domestic first-class passengers, respectively.

"We are very pleased to continue our longstanding partnerships with Airbus, Boeing and Embraer with these orders," said Devon May, AA's chief financial officer. "As we look into the next decade, American will have a steady stream of new aircraft alongside a balanced level of capital investment, which will allow us to expand our network."

Korean Air doubles down on Asiana XWBs

KOREAN AIR has signed a deal with Airbus for 33 Airbus A350s, worth \$13.7bn. The mammoth order consists of six -900s and 27 -1000 variants. No delivery timeline has been specified by the flag carrier or aircraft manufacturer.

The Seoul-based carrier said the order would supplement its long-term fleet operations as it gradually retires older aircraft. The state-of-the-art A350 would also align with its sustainability efforts and assist in the preparation for the integration of Asiana Airlines.

Asiana is already an A350 operator, with 15 -900s in service and a further 15 on order, comprising both the -900 and -1000 variants. Regulatory approval for the merger with Korean has taken longer than expected, although the companies hope to



have the deal finalised by the end of 2024.

The flag carrier of South Korea currently serves 111 cities across 40 countries with a fleet of 160 aircraft and expects to return to 96% of pre-pandemic capacity this summer. It added that it may deploy the A350 on its Seoul/Incheon to New York/JFK service.

Korean Air already has a large number of aircraft on order, including 50 Airbus A321neos, ten Boeing 787-9s, 20 Boeing 787-10s and 30 Boeing 737-8s. It added that fleet modernisation was a priority as it seeks to reduce carbon emissions through the operation of new aircraft and other sustainability activities.

JAL buys big



JAPAN AIRLINES (JAL) has announced orders with both Airbus and Boeing for 42 new aircraft as part of its latest fleet renewal programme. The new jets will be introduced over six years starting from 2027.

In a boost to beleaguered Boeing, the Tokyo-based airline will receive ten new Boeing 787-9 Dreamliners. However, the rest of the order went to rival Airbus, with 21 A350-900s and, most surprisingly, 11 A321neos. The agreement for the latter is a particular blow for Boeing as the US manufacturer has previously been the exclusive supplier of the Japanese flag carrier's single-aisle jets.

The airline said that the new widebodies will enhance and expand the capacity of its international operations, with a primary focus on regions such as North America, Asia, and India, where future growth is expected. An additional domestically configured A350-900 will also be used to replace the example lost in a collision at

Tokyo/Haneda in January 2024.

In a statement, the Japanese flag carrier said that by 2030 it plans "to expand and grow its international network, increasing the combined supply capacity of both full-service and low-cost carriers by approximately 1.4 times, while also accelerating the adoption of the latest fuel-efficient aircraft to provide customers with the best possible service and further reduce CO2 emissions." The statement hinted that some of the incoming 787s may be destined for its ZIPAIR subsidiary, which launched in 2020 and currently boasts a fleet of eight 787-8s, six of which are leased from its parent.

Meanwhile, the Airbus narrowbodies will be strategically deployed on routes that align with demand, including to and from Haneda Airport, starting from 2028. They will join the airline's 21 incoming Boeing 737 MAX 8s, replacing its current fleet of 737-800s from 2026.

NEWS IN BRIEF

- EDELWEISS WILL operate its new Airbus A350-900s from Zurich to North American destinations when it receives the type next year. The first route in spring 2025 will be a thrice-weekly service to Las Vegas and the second a route to Vancouver, Canada. Before then the carrier will operate the aircraft on crew training flights to short/medium-haul destinations. Edelweiss will have four A350s by the end of 2025, with the other two on order arriving in 2026. The aircraft will replace its A340s.
- EMBRAER CEO Francisco Gomez Neto said in March 2024 that the Brazilian company will be ready to launch a new commercial or business aircraft within the next two years. Embraer has been investigating the business case for a new-generation turboprop airliner and researching new propulsion concepts.
- HAWAIIAN AIRLINES received its first Boeing 787-9 Dreamliner (N780HA) in March 2024. The aircraft is initially operating from Honolulu to San Francisco, but from May 2024 will serve Los Angeles from both Honolulu and Maui.
- MALAYSIA AIRLINES has announced it will fly its new A330neo aircraft from Kuala Lumpur to the Maldives, Danang (Vietnam) and Chiang Mai (Thailand). The carrier is due to begin operating the type in summer 2024.

Airbus and Boeing orders and deliveries February 2024

	Type	Orders	Customer Breakdown	Deliveries	Customer Breakdown
Airbus	A220	-	-	6	airBaltic; Breeze Airways (2); Delta Air Lines; JetBlue Airways (2)
	A320neo	-	-	18	Air Lease Corporation [Azores Airlines]; BOCOM Leasing [China Southern Airlines]; CALC [Air India]; CMB Financial Leasing [Air Corsica]; easyJet (2); flynas; IndiGo (4); Lufthansa [Brussels Airlines]; NAS Aviation Services [avianca]; SAS; SMBC Aviation Capital [Air India] (3); Spirit Airlines
	A321neo	-	-	21	Air Lease Corporation (ITA Airways); Aviation Capital Group (Spirit Airlines); CALC (Xiamen Airlines); Cathay Pacific Aircraft Services Limited (HK Express); Delta Air Lines (2); Frontier Airlines (3); ICBC Leasing (2) (Air Busan [1], Xiamen Airlines [1]); JetBlue Airways; Lufthansa (Eurowings); Turkish Airlines; United Airlines; VietJet Air; Volaris (2); Wizz Air (3);
	A330-900	-	-	2	Avolon (Condor); Cebu Pacific
	A350-900	2	Undisclosed customer/s (2)	1	Turkish Airlines
	A350-1000	-	-	1	British Airways
	Total	2		49	
Boeing	737 MAX	10	Undisclosed customer/s (3)	17	9 Air; Air China; Air India; Akasa Air; China Southern Airlines; Donghai Airlines; flydubai; Korean Air; Ryanair (2); Shandong Airlines; Southwest Airlines (2); SunExpress Airlines; United Airlines (2); Xiamen Airlines
	767-300F	-	-	1	FedEx Express
	777F	1	Undisclosed customer/s	-	-
	787-9	4	Royal Brunei Airlines (4)	7	Air Canada; Etihad Airways (3); Hawaiian Airlines; Korean Air; Turkish Airlines
	Total	15		25	

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Half century for Tornado



ON MARCH 20, European multinational aerospace giant Airbus unveiled a Luftwaffe Panavia Tornado IDS, 43-02 (no 209/G7030-4092) in a general assembly to commemorate the 50th anniversary of the variable-sweep wing multi-role combat aircraft's first flight on August 14, 1974.

The aircraft, which bears the markings of the 1st Tactical Air Force, is being loaned to the

German Air Force as part of the 50th anniversary celebrations of the first flight of the first Tornado prototype, P101 D 9591, the first of the series and the first of the series to be built by the Luftwaffe and the only one to be built in a modern day 'green' paint. It also plays a role in the founding ceremony of the 1st Tactical Air Force.

air force and the first of the series — Italy, the United Kingdom and Germany.

Unveiled at Airbus's Marignane factory — where D 951 completed its first flight in 1974 — the aircraft is currently on loan to the 1st Tactical Air Force, 33rd Air Base in the town of Garmisch-Partenkirchen, Germany — the first of the series to be built in 1974.

Pentagon approves Osprey flight resumption

THE PENTAGON has cleared all three variants of the V-22 Osprey to return to flight after what has been a three-month grounding. US Air Force Special Operations Command (AFSOC) initially grounded its CV-22B fleet after the fatal loss of an aircraft on November 29, 2023, before US Naval Air Systems Command (NAVAIR) grounded the rest of the US Osprey force, which is operated by the USMC (MV-22B) and US Navy (CMV-22B).

NAVAIR formally lifted the Osprey grounding order on March 8, with the Pentagon Press Secretary, USAF Maj Gen Patrick S Ryder, said that the US Secretary of Defense, Lloyd J Austin III, "is confident in the steps that have been taken to return it to flight... He recently had the opportunity to receive an update from the service secretaries and chiefs on the steps that are being taken and, again, is confident in their decision."

While the cause of the fatal accident in November has not been revealed, AFSOC has said that its initial findings suggested

a materiel failure, rather than pilot error. AFSOC subsequently confirmed that it has identified which part had failed, but that it has not yet concluded why that failure occurred. It is widely believed that it was probably the input quill assemblies, which are responsible for a known hard-clutch engagement problem that has been blamed for at least one previous fatal Osprey accident.

AFSOC has said that it plans to take a

phased approach to returning the CV-22B fleet to operational service. Phase 1 will include ground and simulator training, a review of maintenance records and refining squadron-by-squadron training plans to implement new safety protocols. A multi-month Phase 2 will enable aircrew and maintainers to regain proficiency and mission currency. Finally, there will be a return to full operations, including exercises and deployments under Phase 3. **Jon Lake**



US Navy/MCS2 Class Kenneth C. Ladd

US to acquire fewer F-15EXs



AS PART of its FY25 budget request, the USAF has revealed that it now plans to purchase 18 F-15EXs, rather than the 24 Eagle IIs that were initially set to be acquired. This would take the total planned F-15EX procurement from a total of 104 aircraft to just 98.

The USAF originally planned to buy at least 144 F-15EXs, but this number was cut back to 80 in 2022, before being increased to 104 aircraft last year. Members of the US House of Representatives sought to force the USAF to increase Eagle II numbers to

110 as part of the annual National Defense Authorization Act (NDAA), but this provision was subsequently dropped.

With Technology Refresh 3 (TR-3) hardware/software update difficulties now affecting the USAF's F-35 purchases, the air arm will fall well short of the 72 new fighters that it needs to acquire annually to maintain fighter numbers, especially given its plans to divest 32 F-22A Block 20 Raptors and to reduce the number of older F-15E Strike Eagles that are powered by Pratt & Whitney's F100-PW-220 afterburning turbofans.

Air Force Secretary Frank Kendall III noted that the USAF's proposed FY25 budget has been constrained by the provisions of the Fiscal Responsibility Act (FRA), which President Joe Biden signed last year, and reflected "tough choices" that had to be made to meet the 1% cap on increased spending imposed by the FRA. "The secret of life and budgets is balance: we tried to get the balance as best as we could, and I think we got to what I think is acceptable balance here," he said.

The USAF has received six F-15EXs for testing and the Oregon Air National Guard's (ANG's) 142nd Wing is set to receive its first pair of operational Eagle IIs later this year. The type will also equip the California ANG's 144th Fighter Wing (FW) and the Louisiana ANG's 159th FW, with each wing receiving a squadron of 18 F-15EXs. Since plans for a dedicated F-15EX training unit have been cancelled, this would leave sufficient Eagle IIs for two more squadrons, which might stand up at Kadena Air Base in Okinawa, Japan, to replace the legacy F-15C/Ds that were based there.

Jon Lake

Ukrainian pilots complete RAF basic training

THE RAF has revealed that the first cohort of Ukrainian Air Force (UkrAF) pilots to receive basic flying training (BFT) in the UK has completed the syllabus and the pilots are now learning to fly the F-16 Fighting Falcon.

Since August, the RAF has been providing both basic flying and aviation-specific English language training to UkrAF combat pilots. It is part of the UK's contribution to the international Air Capability Coalition for Ukraine, which aims to bolster the UkrAF's overall combat capabilities as it continues to defend Ukraine from its Russian invaders.

An initial group of six experienced UkrAF fighter pilots ventured to an undisclosed RAF base to receive the language and BFT to enhance their ability to engage with coalition training and support.

A further ten UkrAF student pilots have also taken part in the language training but have remained in the UK to continue their practical BFT course, while also learning important skills such as aviation medicine and centrifuge training. The pilots who remain in the BFT phase are having

practical lessons using the RAF's Grob G115E Tutor T1, with guidance from RAF instructors. UkrAF student pilots are learning general handling procedures, instrument flying, medium and low-level navigation and formation flying, with the aim of bringing them closer to the NATO standard.

Like the initial six pilots, once these

students have completed their training with the RAF, they will undertake an advanced flying training course with one of the other Air Capability Coalition for Ukraine nations. This will prepare them for training on the F-16 operated by allied nations, such as Denmark, the Netherlands and the US.

Khaleem Chapman



RCAF axes Hawks in training shake-up



THE ROYAL Canadian Air Force (RCAF) is making major changes to its pilot training programme in preparation for the frontline fighter force's upcoming transition from the CF-188A/B Hornet to the F-35A Lightning II.

As part of the transition, the RCAF ended its Fighter Lead-In Training (FLIT) programme and has retired the CT-155 Hawks flown by No 4 Wing's No 419 Tactical Fighter Training Squadron (TFTS) at Canadian Forces Base (CFB) Cold Lake in Alberta. The FLIT was conducted as part of the NATO Flying Training in Canada (NFTC) programme supplied by CAE Military Aviation Training.

The NFTC programme combined basic, advanced and lead-in fighter training as part of the RCAF's comprehensive military pilot training initiative. The Hawk had been used for Phase 4 of the programme by No 15 Wing at CFB Moose Jaw, Saskatchewan and No 4 Wing at CFB Cold Lake. Training operations with the CT-155 concluded at Moose Jaw in mid-2023 and the RCAF's

17 remaining Hawks were formally retired on March 8, 2024, when No 419 TFTS was placed on hiatus. The squadron will be reactivated when a future FLIT programme is established in the 2030s.

In the interim, Canadian fighter pilots will receive their initial fighter training from the USAF's 80th Flying Training Wing at Sheppard AFB, Texas as part of the Euro-NATO Joint Jet Pilot Training (ENJJPT) programme. Students will also be enrolled into the FLIT programmes in Finland and at Italy's International Flight Training School (IFTS), where two instructors and six students will be assigned by 2025.

Canada has been a part of the ENJJPT initiative since it was established in 1981, and the RCAF has typically assigned approximately five instructor pilots to Sheppard and five or six students have received their lead-in fighter training before joining No 410 Tactical Fighter Operational Training Squadron at Cold Lake. Moving forward, up to seven Canadian students will

be assigned to ENJJPT annually. Ultimately, the NFTC programme will be replaced by Canada's Future Aircrew Training (FAcT) initiative. The SkyAlyne Canada Ltd partnership (between CAE and KF Aerospace) was selected as the preferred bidder to deliver this programme in 2023.

The RCAF will continue to operate the CT-156 Harvard II under Phase 2 and 3 of the NFTC initiative until this current period concludes in December 2027, although it could be extended by one year to 2028. According to the RCAF, the FAcT programme will provide "a relevant, flexible, responsive and effective ab-initio aircrew training programme for RCAF pilots, Air Combat Systems Officers (ACSOs) and Airborne Electronic Sensor Operators (AES Op)". It will replace NFTC, the Contracted Flying Training and Support (CFTS) programme, and ACSO/AES Op training.

The CFTS programme oversees the flying training and support services contract for basic flying training, multi-engine and helicopter pilot training conducted at the Southport Aerospace Centre (SAC) by No 3 Canadian Forces Flying Training School (CFFTS) and training contractor, KF Aerospace, using the CT-102 (Grob G120A), King Air C90B and CH-139 JetRanger and CH-146 Griffon helicopters.

Canada originally received 22 Hawks between July 2000 and August 2004. Four CT-155s have since been written-off in mishaps while the remaining 17 will be relocated to the Canadian Forces School of Aerospace Technology and Engineering at CFB Borden for ground instructional use.

Tom Kaminski

RAF Atlas Gaza aid drop

AN RAF Atlas C1 has dropped more than ten tonnes of food supplies and humanitarian aid onto Gaza's northern coastline. The sortie, which took place on March 25, 2024, is not only the first time that RAF aircraft have participated in the Jordanian-led international effort to provide assistance to Gazan civilians, but is also believed to have been the first time an RAF Atlas has completed an operational drop. The RAF worked closely with the Royal Jordanian Air Force to plan and conduct the mission.

John Ash



First French aerial victories since WW2



TWO FRENCH Air and Space Force (FASF) pilots flying Mirage 2000-5F multi-role fighters have scored France's first successful aerial victories against enemy aircraft since the end of World War Two, after the two jets engaged in air-to-air combat with Houthi-operated kamikaze drones over the Red Sea on March 9.

Operated by Escadron de Chasse 1/2 (EC 1/2; Fighter Squadron 1/2) 'Cigognes' and temporarily assigned to EC 3/11 'Corsica' at Djibouti Air Base (BA188) – a part of Djibouti-Ambouli International

Airport – the Mirage 2000-5Fs were tasked on March 9 with providing combat air patrols (CAPs) over the Red Sea to not only assist the Navy vessels involved in Operation Prosperity Guardian (OPG) in countering the threat of Houthi-launched kamikaze drones and cruise missiles, but also to protect the French military contingent in Djibouti.

In the early hours of March 9, Houthi militants launched four Iranian-made Shahed-136 kamikaze drones at a commercial ship in the Red Sea. The flight paths of these drones were also toward the French Navy's Aquitaine-class air-

defence frigate, FS *Alsace* (D656), which was at the same time being protected by the two Mirage 2000-5Fs flying a CAP between the ship and the coast of Djibouti. The ship launched an Aster-15 surface-to-air missile and used its 76mm Super Rapid naval gun to shoot down two of the drones. The remaining two were targeted and destroyed by the Mirage 2000-5Fs, though it is not known if just one pilot shot them down or if both pilots had the opportunity to 'splash' one each.

This was the first time that FASF Mirage 2000-5Fs got directly involved in the since OPG was launched on December 18, 2023 to protect international commercial shipping in the Red Sea from attacks launched by Iran-backed Houthi militants.

The FASF currently operates 26 single-seat Mirage 2000-5Fs operated by EC 1/2 at Luxeuil Air Base (BA116). The unit always has two examples continuously deployed at Évreux-Fauville Air Base (BA105) to protect the French capital city. Three jets are also detached to EC 3/11 in Djibouti to protect French Armed Forces personnel present in the country.

Brazilian Hercules make way for KC-390

THE FAB – the Força Aérea Brasileira; Brazilian Air Force – bid a fond farewell to its remaining C-130 Hercules tactical transports at Galeão Air Base (AB) in Rio de Janeiro on February 29, with the type having flown more than 377,000 operational flight hours over the past 60 years.

The type – which was operated by the 1st Squadron of the 1st Transport Group (1º/1º GT) 'Gordo (Fat)' at Galeão until its retirement – entered FAB service in 1964, with a total of 29 examples being employed by the Brazilian air arm over the past 60 years. Being the oldest aircraft type in FAB service, the C-130 carried out a variety of different mission sets, including troop/cargo transport; paratrooper/cargo airdropping; humanitarian assistance/disaster relief; aerial firefighting; search and rescue (SAR); aerial reconnaissance/photogrammetry; air-to-air refuelling; and Antarctic support operations.

Its mission has now been fully assumed by its successor, the domestically developed Embraer KC-390 Millennium, which is the largest aircraft ever to be designed and

produced in the southern hemisphere.

The FAB's first three C-130Es arrived in Brazil in August 1964 and were assigned to the 1º/1º GT. Another two examples followed in 1965, with a further three C-130Es joining the FAB's ranks in 1967-1968, bringing Brazil's total fleet to eight aircraft. The FAB subsequently received three SC-130Es in 1969, which began equipping the 1st Squadron of the 6th Aviation Group (1º/6º GAV) 'Carcará' at Recife AB and were tasked with flying SAR and aerial reconnaissance/photogrammetry missions.

In 1974, three C-130Hs and two KC-130Hs were acquired, with the latter initiating in-flight refuelling operations for the FAB. Flights to Antarctica began in 1983, with the first Hercules landing on the frozen continent on August 23 that year. In 1986, three more C-130Hs were purchased and, finally, in 2001, the final batch of ten C-130Hs were purchased second-hand from Italy.

In 2003, some 18 C-130s underwent a thorough modernisation process and were redesignated C-130Ms.



Red Hawk endures month of climatic testing



THE USAF has marked a significant milestone in the operational development of its new advanced jet trainer, the T-7A Red Hawk, after a Boeing-operated test aircraft (21-7003) completed a month-long extreme weather trial inside the McKinley Climatic Laboratory at Eglin Air Force Base, Florida, on February 23.

During the trial, the T-7A testbed endured

temperatures ranging from 110°F to -25°F, as well as heavy humidity conditions. The aim of these tests, carried out in the laboratory's 55,000ft² test chamber, was to verify the Red Hawk's sustainability in any operational environment. "We need to know the T-7A can operate in the environmental conditions it will encounter at pilot training bases around

the country," said Dr Troy Hoeger, the chief development tester for the T-7A with the US Air Force Lifecycle Management Center (AFLCMC).

Once the lab technicians had created the extreme environments, T-7A aircrew from Boeing and the USAF performed system operations and engine runs to evaluate the Red Hawk's reactions in those scenarios. According to the USAF, a significant amount of this month-long test schedule was dedicated to preparing the chamber for the extreme conditions. "Technicians worked continuously to go from a superheated 100°F desert condition to a below-freezing icebox in only a few days," the service reported.

After the T-7A completes its climatic test campaign, the aircraft will return to Boeing to ensure the aircraft's technical orders are safe and accurate for its operators and maintainers. The type will undergo continued testing before it enters operational service and begins to replace the USAF's ageing fleet of T-38A/C Talon jet trainers.

Khaleem Chapman

USAF slashes MH-139 acquisition

THE USAF has scaled back its fielding plans for the MH-139A Grey Wolf multi-mission helicopter, reducing the size of the planned fleet by nearly 50%.

As a result, the 316th Wing's 1st Helicopter Squadron (HS) at Joint Base Andrews, Maryland, and the 58th Special Operations Wing's 36th Rescue Squadron at Fairchild Air Force Base, Washington, will continue to operate the ageing UH-1N Huey for the foreseeable future.

The two units are respectively assigned to the Air Force District of Washington and Air Education and Training Command. The move to reduce MH-139 procurement from 80 to 42 helicopters was revealed as part of the USAF's proposed Fiscal Year (FY) 2025 budget.

The USAF had previously reduced planned orders for the Grey Wolf from 84 to 80 when it cancelled plans to field four helicopters with the 374th Airlift Wing at Yokota Air Base, Japan. The bulk of the fleet – comprising 33 helicopters – will be operated by three squadrons that report to Air Force Global Strike Command's 582nd Helicopter Group at Francis E Warren AFB in Wyoming. As a result, 11 MH-139As will

be fielded with the 37th, 40th and 54th HS at Francis E Warren AFB, Malmstrom AFB in Montana, and Minot AFB, North Dakota. The remaining nine helicopters will be divided between the Grey Wolf schoolhouse at Maxwell AFB, Alabama, and for testing duties at Eglin AFB, Florida.

Developed as a joint venture between Boeing and Leonardo, the Grey Wolf is a militarised version of the latter's AW139 commercial helicopter. The programme has experienced its share of issues that were related to the conversion from civil to military configuration. Delays with the Federal Aviation Administration (FAA) certification

caused the USAF to slip the first low-rate initial production (LRIP) order for eight helicopters from FY21 to FY23.

Like many other programmes, additional issues discovered during test and evaluation could cause the MH-139A to fall short of "operational effectiveness requirements" as noted in a report from the US Department of Defense's Director of Operational Test and Evaluation. While the smaller procurement reduces the overall cost of the Grey Wolf programme from \$2.55bn to \$1.42bn, it causes the unit cost per helicopter to increase by 14.2% from \$34.47m to \$39.37m. **Tom Kaminski**





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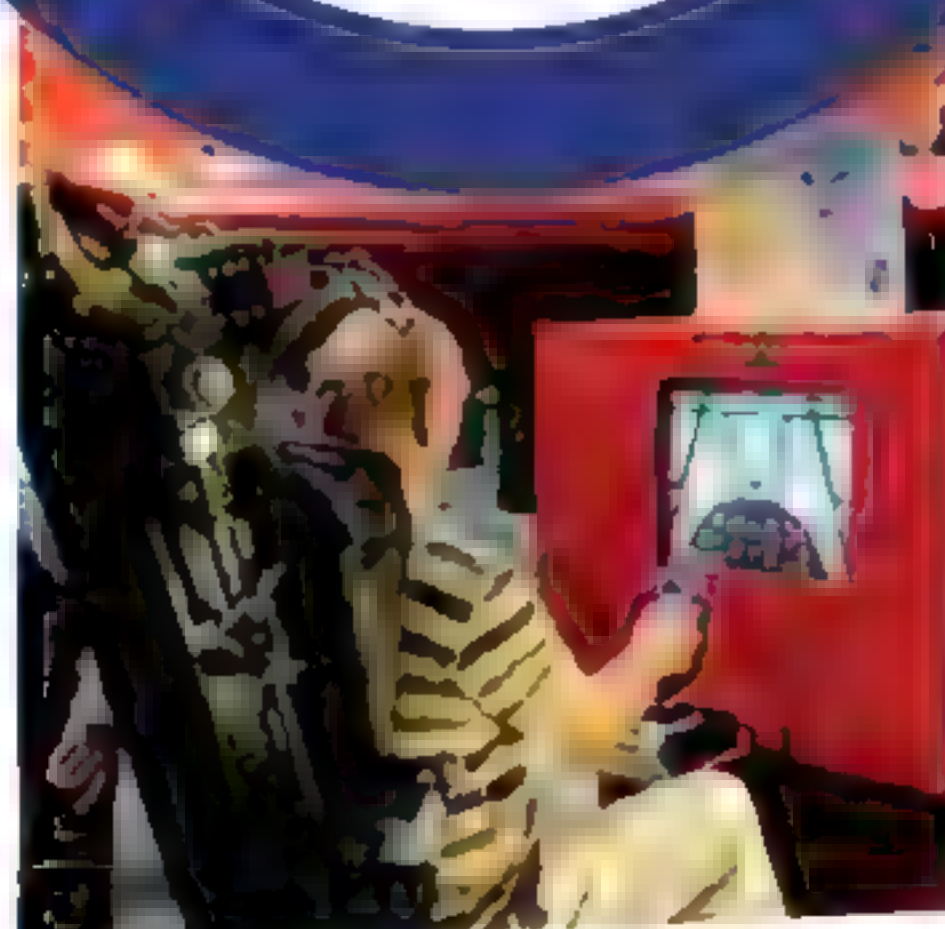


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9/11 Skyhawk lands in Ohio



National
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ON MARCH 13, 2024, the National Museum of the United States Air Force (NMUSAF) at Ohio's Wright-Patterson Air Force Base took delivery of its latest exhibit, former Civilian Air Patrol (CAP) Cessna 172P Skyhawk II N9344L. Delivered new to the CAP – the official civilian auxiliary of the USAF – in 1986, N9344L, dubbed '44 LIMA', gained distinction as the only non-military aeroplane to fly in US airspace on September 12, 2001. On that day, N9344L, crewed by CAP Lt Col Jacques Heinrich and Capt Andrew Feldman and Warren Ratis, flew a government-approved mission over the still-smoking ruins of the World Trade Center in New York to gather images of the destruction following the September 11 terrorist attacks. At the time, the site was designated a war zone. Retired in early March with more than 5,000 hours on the airframe, the aircraft arrived at Wright-Patterson from its last operational base at Bradley International Airport in Connecticut via New York and has since been placed on display in the NMUSAF's Cold War Gallery.

Bolingbroke discovered in Canada



IN EARLY March, the Royal Canadian Air Force (RCAF) announced that the remains of a Bristol Bolingbroke had been discovered in the province of Manitoba and donated to the Commonwealth Air Training Plan Museum (CATPM), which is aiming to put an example of the type in the air.

The aircraft was found last year by Capt Walter Workman, a primary flying instructor with the 3 Canadian Forces Flying Training School, while surveying helicopter training areas near Portage la Prairie Southport Airport. While the identity of the airframe – a 1940 Fairchild-Canada license-built version of the Bristol Blenheim Mk.IV – remains unknown at the time of writing, it

is believed the aircraft was purchased in 1946 from RCAF Station McDonald, about 10 miles northwest of Portage la Prairie, and towed to its final resting site with the wings still attached. MacDonald was formerly the home of the RCAF's No. 3 Bombing & Gunnery School, a unit attached to the British Commonwealth Air Training Plan, suggesting the aircraft is a Mk.IVT multi-purpose trainer.

With the parts removed and transported to the CATPM's facility in the nearby town of Brandon for storage, museum volunteer and Flying Committee chair Jeff Bell noted the donation would "add considerably to our Bolingbroke project in the future."

'Marine One' finds new home in Texas

FORMER UNITED States Marine Corps Sikorsky VH-3D Sea King 159358 was delivered on permanent loan to the George HW Bush Presidential Library and Museum in Texas on February 27, 2024. Built in 1968 and previously operated by Marine Helicopter Squadron One (HMX-1) 'Nighthawks', 159358 was regularly used as 'Marine One' by Bush during his presidency between 1989 and 1993, as well as his son, George W Bush, between 2001 and 2009. Said to give "definition to the role of the President", the Sea King arrived in Texas from the National Museum of the Marine Corps collection in Virginia. It is expected to be unveiled to the public on June 13 this year.



Powell's Mossie flies



THE FOURTH de Havilland Mosquito to be rebuilt by New Zealand-based AvSpecs Ltd made its first post-restoration flight on March 18 from Ardmore Aerodrome, south of Auckland. The twin-engined bomber, ZK-PWL (c/n) 'NZ2308/YC-Z', flew for 13 minutes in the hands of noted warbird pilot Steve Hinton Sr with AvSpecs' Warren Denholm in the second seat.

The Mossie was built by de Havilland Australia at its plant in Bankstown, Sydney, as part of a contract for the Royal Australian Air Force (RAAF). Initially intended to become an FB.40 model – the Aussie equivalent of the FB.VI – it was later converted to a dual control T.43 model while still on the production line. The aircraft was delivered to No.3 Aircraft

Depot at RAAF Amberley, Queensland, in August 1946 as A52-1054, before moving to RAAF Archerfield two months later for storage – the end of World War Two having made vast numbers of aircraft redundant.

The Royal New Zealand Air Force (RNZAF) was anticipating the delivery of Mosquito FB.VIs from the UK and, seeking trainers, acquired four T.43s from the RAAF including A52-1054. The aircraft would become NZ2308 when delivered to the RNZAF and allocated to 75 Squadron in June 1947.

A policy change meant that this squadron would be the sole RNZAF unit to fly the 'Wooden Wonder', and it would lose its Mosquitos early in the next decade in favour of the de Havilland Vampire. Struck

off charge in the early 1950s, the aircraft would be stored on a farm near Motueka on New Zealand's South Island after a project using aircraft engines to blow air to protect fruit crops failed. It was later discovered by Museum of Transport and Technology (MOTAT) volunteers who were restoring another Mosquito, NZ2305.

MOTAT would later sell the remains of NZ2308 to Owyn Fenner – who worked for Gulf Aeronautics at Ardmore and would form a group around the airframe to restore it to airworthiness and eventually fly it.

Glyn Powell was one of those syndicate members and he would collect the necessary drawings from around the world to create brand new fuselage moulds from scratch and to rebuild the Mosquito. After the group around the Mosquito was later dissolved, he would continue to collect parts and other wrecks to begin the ambitious project which has since led to four flying Mosquitos and one static restoration.

As *Aviation News* went to press, NZ2308 was anticipated to be the star of the Warbirds over Wanaka International Airshow to be held on the weekend of March 29-31. It is then being dismantled and shipped to its new owners, Texas-based Lewis Air Legends.

Demon departure



IT HAS been announced that Hawker Demon I, G-BTVE (c/n K8203) 'K8203', the sole airworthy example of the silver-winged interwar biplane, has been sold to Kermit Weeks for his Florida-based Fantasy of Flight collection. Originally built in 1937 by Boulton Paul Aircraft, the former RAF aircraft was returned to the skies by Skysport Engineering for the late Howell Davies of Demon Displays in 2009 following an 18-year, 35,000-man hour restoration. Dressed in its original 64 Squadron markings and based out of Old Warden in Bedfordshire, the aircraft was cancelled from the UK Register on February 8, 2024, and has since been added to the US Register as N1HD.

P.1 makes rare trip outdoors

ENGLISH ELECTRIC P.1, WG763 (c/n 95003), appeared on external display for the first time in more than 40 years at a recent Threshold. aero photoshoot held at the Old Sarum-based Boscombe Down Aviation Collection (BDAC), Wiltshire.

The second P.1 built, WG763, made its first flight on July 18, 1955 – the first tangible step towards the type becoming an operational fighter with the Royal Air Force. It differs from the earlier P.1A, WG760 (c/n 95001), as it was equipped with a pair of Aden cannon and fittings for the attachment of a belly fuel tank.

A short flying career included supersonic cannon-firing trials and slow-speed handling trials with the Royal Aircraft Establishment at Boscombe Down. Both P.1s were allocated to

ground instructional use at the end of their flight test tenures and were displayed on the parade ground at RAF Henlow, Bedfordshire, from 1964.

The pair would enter preservation in the early 1980s, with WG763 becoming one of the first airframes to join the then-new Manchester Science and Industry Museum collection. It would remain at the Mancunian attraction for the next four decades until Lower Campfield Market Hall – which housed the Air and Space Hall – was closed and returned to Manchester City Council in 2021 owing to the building's condition.

Early in 2022, WG763 was placed on loan from the RAF Museum at BDAC where it was reassembled and placed on display.



Annual deliveries revealed



THE GENERAL Aviation Manufacturers Association (GAMA) has announced the Annual Deliveries totals for 2023. It was generally a satisfactory year for the industry, with 3,050 fixed wing aircraft delivered compared with 2,818 the previous year. Helicopters also advanced

with 962 units up from 932 in 2022.

The first Dassault Falcon 6X business jets were handed over to customers and the other business jet manufacturers, Gulfstream, Bombardier and Textron all increased their penetration. An important new comer was Textron's

Cessna 408 SkyCourier, which notched up 18 deliveries in its first year. The agricultural sector is also robust and Air Tractor and Thrush Aircraft saw strong demand with 279 deliveries, up 32% on 2022. The strongest performers in the personal aircraft market were Cirrus Aircraft, which sold 612 SR20s and SR22s along with 96 Vision jets, and Diamond, whose DA50 and DA62 proved extremely popular with 85 completed. Textron, Diamond and Piper are seeing strong demand for aircraft in the professional flight training market and 180 Cessna 172s, 145 Piper PA-28s and 134 Diamond DA20s and DA40s were built during the year. While American manufacturers are dominant in the marketplace, other key producers are Embraer with the Phenom and Praetor business jets (115 sold) and Swiss manufacturer Pilatus, which moved 102 PC-12 turboprops and 47 PC-24 business jets.

The general aviation industry is confidently looking forward to further growth in 2024.

Britten-Norman saved from administration

FOLLOWING THE reopening of production of the Britten-Norman Islander at the Bembridge, Isle of Wight plant in September, 2023, the business has been acquired by private equity group 4D Capital Partners. This will secure 117 jobs at Bembridge and bring new investment to Britten-Norman Aerospace, which has plans for expansion. The company had brought back production from Romania and manufactures the Islander in turboprop and piston-engined variants, as well as exploring potential hydrogen-electric power sources as part of Cranfield Aerospace Solutions' Project Fresson programme.



Flickr Commons/Alan Wilson

Blackshape Prime grounded



THE EUROPEAN UNION Aviation Safety Agency (EASA) has ordered the grounding of Blackshape Prime single-engined aircraft. The move was prompted due to concerns regarding potential structural failure of the type's wing following two fatal accidents.

Two variants of the Italian-built light aircraft – the BS 115 and the BK 160 – are affected by the grounding until inquiries into the two crashes are completed. However, EASA has stated that an investigation into one of these events has revealed that a structural failure of the wing was a "possible contributing factor".

EASA has not stated which crash has

prompted the decision, but Malaysian air accident investigators have been looking into the causes of a February accident close to Kuala Lumpur in which a BK 160TR crashed with the loss of both persons on board. The possibility of an in-flight break-up of the aircraft has been suggested in the preliminary report, as it states that the entire starboard wing was located more than 500m from the main wreckage site. Other factors, including whether the aircraft was above its 850kg maximum take-off weight during its fatal flight and if high levels of carbon monoxide were present in the cabin, have not been ruled out.

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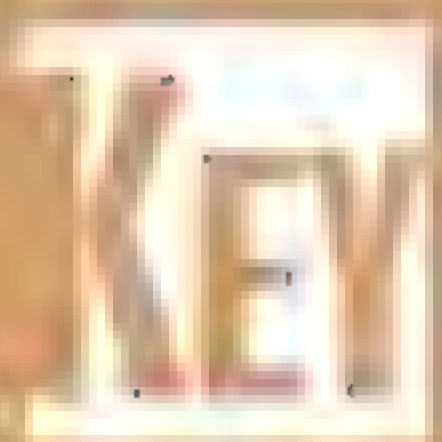
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CLOSING DATE: 31st May 2024.



Fly and Fight with Tuskegee

Against Fascism Abroad and Racism at Home

On March 24, 1945, from the Ramitelli air base in Italy, pilots from America's first all-black fighter group flying P-51s with the Rolls Royce Merlin engine, took off on a mission that was a hallmark of World War II. Their mission was to escort B-17 bombers on the first leg of an attack on Berlin, protecting the bombers at all cost. Over German skies, these pilots faced the Luftwaffe's first operational jet-engine fighter, the Me 262 Schwalbe. As the fighter pilots fought Nazi jets over Berlin, back at Freeman Army Airfield in Seymour, Indiana, many of their Ramitelli brothers in arms had been arrested and court martialed for having rejected the segregation imposed by the US military, trying to enter the officers' club reserved for white officers.

The pilots of the 332nd Fighter Group and the officers of 447th Bombardment Group were fighting two wars: one against Fascism in Europe and the other against racism in the United States. These pilots were the



Tuskegee Airmen, or "Red Tails." The famed "Mission To Berlin" was the longest of the 15th Air Force, based in southeast Italy. For their success and a total of 1500 missions overseas, the U.S. Congress awarded the Tuskegee Airmen a Congressional Gold Medal, the most prestigious award the US Congress can give to *civilians*. The Tuskegee Airmen are the protagonists of a story of redemption and success that led to Allied victory; ultimately to the end of legal segregation in the American Army, and to paving the way for the Civil Rights Movement in America.

Here at Campomarino, a beautiful southern Italian city in the Molise Region on the Adriatic coast of Italy east of Rome, the memory of the Tuskegee Airmen is preserved thanks to Professor Marco Altobello, historian and director of the Red Tails Museum. Today, the Red Tails Museum preserves Tuskegee Airmen memorabilia, including a permanent photographic exhibition and projection rooms where the story of the Tuskegee Airmen is boldly told through emotive historical films and documentaries. The work of the Tuskegee Airmen Organization of Campomarino, led by Marco Altobello, is the pinnacle of a great tourist destination. Our city combines splendid beaches, a beautiful sea, and quality regional products, such as our region's excellent wines, highlighted by the renowned history of these legendary pilots. Campomarino has dedicated a monument and mural to these African-American pilots who are now legendary in American history.

The Museum Donations to Preserve the American Tuskegee Story

Near Campomarino there are decaying buildings that once hosted the WWII Tuskegee Airmen, including headquarters of their 332nd Fighter Group. The building is in ruins, but we hope to restore it and establish a large aviation museum inside. We are seeking sponsors who can help us to preserve their extraordinary story.



Marco Altobello's effort, within the *Freedom for Italy* initiative—an international effort to preserve our shared core democratic values—includes the organization of a large international conference scheduled for spring 2025. Historians, VIPs, diplomats and veterans will be guests in Campomarino. The conference will be organized with the support of the Tuskegee Airmen Incorporated.

For further information and donations, please contact the Campomarino Tuskegee Airmen Organization (Marco Altobello): marco.altobello@gmail.com, +393494963857, or Waymand Brothers at trrybro60@gmail.com in the US.



Retirements planned in \$850bn FY25 budget

RELEASED IN March, the \$849.8bn Fiscal Year (FY) 2025 President's Budget for the US Department of Defense represents an increase of \$7.8bn in spending when compared with the FY24 base request. The \$167.6bn procurement budget includes \$61.2bn for new military aircraft and related systems.

The US Army's \$185.9bn budget request is a \$400m increase over its FY24 request and includes \$3.2bn for aviation procurement. The cancellation of the Future Attack Reconnaissance Aircraft (FARA) programme is part of a wider plan, under which the Army is 'Rebalancing Aviation Investment for the Future Battlefield'. Additionally it is ending its process of converting UH-60L Black Hawks to the UH-60V configuration in favour of procuring new UH-60Ms. However, the Army is continuing to develop its Future Long-Range Assault Aircraft (FLRAA) – with Bell's V-280 Valor tiltrotor having been selected on December 5, 2022 as the service's preferred solution – with the platform expected to eventually start replacing the venerable Black Hawk fleet from the early 2030s.

The latest budget request sustains Apache, Black Hawk and Chinook helicopter production and remanufacturing, providing for 24 new-build and 41 remanufactured rotorcraft in total. The Army plans to divest 17 EO-5C, MC-12S Enhance Medium Altitude Reconnaissance and Surveillance System (EMARSS-S), MC-12S-3 EMARSS-V and RC-12X Guardrail fixed-wing aircraft, along with 51 UH-60L utility helicopters. The US Navy's \$257.6bn budget submission represents a \$1.8bn increase

over its FY24 request and includes \$16.2bn for the procurement of 75 aircraft. In addition to continued F-35B/C Lightning II, CH-53K King Stallion and MQ-25A Stingray procurement, this budget request also completes the Navy's acquisition of the T-54A Multi-Engine Training System (METS). The US Navy and USMC plan to divest 123 aircraft in total, comprising 34 fighter/attack jets; 33 training aircraft; 29 rotary-wing assets; 16 maritime patrol/airborne early warning platforms; and 11 other aircraft. The fixed-wing aircraft include examples of the AV-8B/TAV-8B Harrier II, F/A-18C/D Hornet, F/A-18F Super Hornet, E-2C Hawkeye, EP-3E Aries II, NP-3C/P-3C Orion, T-44C Pegasus and KC-130T Hercules. The planned rotary-wing retirements include examples of the AH-1Z Viper, VH-3D Sea King, CH-53E Super Stallion, MH-53E Sea Dragon, TH-57B/C Sea Ranger and UH-1Y Venom. Meanwhile, the service also plans to withdraw examples of the unmanned MQ-8C Fire Scout and RQ-21A Blackjack fleets. The USAF's \$217.5bn FY25 budget request is a \$2.4bn increase over its FY24 request. A \$19.82bn procurement budget funds the purchase of 76 new aircraft, comprising the F-15EX Eagle II, F-35A Lightning II, KC-46A Pegasus, T-7A Red Hawk and C-40 Clipper. It marks the beginning of low-rate initial production (LRIP) for the Red Hawk. Additionally, the USAF request provides \$5.3bn to continue ongoing development and LRIP efforts for the new B-21A Raider stealth bomber. The type began its LRIP process in FY24. The Research, Development, Test and Evaluation (RDT&E) budget includes \$1.7bn for the new Survivable Airborne Operations Center (SAOC) programme, as it continues to

source a replacement for the USAF's ageing E-4B National Airborne Operations Center (NAOC, otherwise known as the 'Nightwatch') fleet.

The USAF plans to divest 261 aircraft – comprising 205 combat aircraft, 34 air mobility assets and 22 training types. In addition to the planned retirement of 56 A-10C Thunderbolt IIs and 26 F-15E Strike Eagles, the service plans to withdraw examples of its B-2A Spirit, E-11A Battlefield Airborne Communications Node (BACN), EC-130H Compass Call, F-15C/D Eagle, F-16C/D Fighting Falcon, F-22A Raptor and HH-60G Pave Hawk fleets. The air mobility and training types that are earmarked for retirement include examples of the C-130H Hercules, CV-22B Osprey, KC-135R/T Stratotanker, MC-130J Commando II and T-1A Jayhawk aircraft. US Special Operations Command (USSOCOM) procurement plans are limited to the MH-47G Block II Chinook and OA-1K Armed Overwatch aircraft. Known as the Sky Warden, the OA-1K aircraft is based on Air Tractor's AT-802U, but L3Harris is serving as the prime contractor for this contract. USSOCOM plans to divest 12 MC-12 'JAVAMAN' intelligence, surveillance and reconnaissance (ISR) aircraft, four MC-12W Liberty liaison/utility aircraft, one CV-22B Osprey tiltrotor and a single U-28A Draco in FY25.

The rotary-wing types include seven A/MH-6M Little Birds – which are being replaced by the A/MH-6R – and a single MH-60M. USSOCOM air assets are operated by US Air Force Special Operations Command (AFSOC) and the US Army Special Operations Command (USASOC). **Tom Kaminski**



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Millennium Falcons



Rod Simpson continues his charting of the Dassault Falcon business jet family and its continued evolution, in the second of two parts

▲ Dassault replaced the Falcon 20 and 200 with the Falcon 2000. The twin-engine jet first flew in March 1993 and it remains in production more than 30 years later. All images Dassault Aviation via author

Dassault entered the 1990s with three business jet models in production – the Falcon 50 and 900 trijet models and the classic Falcon 20, which had been upgraded as the Falcon 200. The oldest and lattermost variant was suffering from outdated technology and attracted few sales despite sitting in a key market segment. Three decades removed from the Falcon 20's first flight, the manufacturer opted to usher in a whole new generation of Falcon business jets.

The Falcon X programme was first announced in June 1989 and was officially named the Falcon 2000 the following October. The forward fuselage and wings were based on that of the Falcon 900 to speed up the type's development, while the rear fuselage and fin were designed 'clean sheet' using Dassault's CATIA computer-aided design, engineering and manufacturing software. The '2000 would not only be replacing the earlier 200 model but would respond to customer demand for a bigger cabin and the capacity to fly faster



and further than before.

The cabin of the 2000 was 30% wider allowing for an extra row of seats and it boasted 6ft 2in of headroom to accommodate all but the tallest passengers. It had much more power from a pair of 6,000lb st GE Aviation/Garrett CFE738 turbofans mounted on the rear fuselage which delivered a maximum cruising speed of Mach 0.85 a range of 3,000nm with eight passengers and reserves. This would comfortably allow non-stop flights from Los Angeles to Honolulu, Paris to Riyadh and London to New York.

The Merignac factory progressed quickly with the construction of a prototype which first flew on March 4, 1993. US Federal Aviation Administration type certification followed less than 12 months later in February 1995. Production moved forward rapidly with the 100th aircraft being delivered to Little Rock for completion in 1999. The order book was boosted by many customers trading up from smaller business jets such as Citations, while fractional operator NetJets ordered more than 100 examples.

Final assembly was carried out at Bordeaux-Merignac, however major sub-assemblies were constructed at several other plants across France. Wings were produced at Martignas, northwest of Bordeaux, the forward fuselage at Argenteuil in northern Paris and the empennage at Biarritz. Many other components were subcontracted out, including the rear fuselage which was built by Alenia Aeronautica in Italy.

Several cabin layouts were offered to seat between eight and 19 passengers as well as featuring a galley and a lavatory. Passenger comfort was important as the Falcon 2000 found itself in competition with the similarly priced Bombardier Challenger 605 and also with the Embraer Legacy and Gulfstream 350 which had full stand-up interiors and longer but narrower cabins.



► The Falcon 2000 is set to remain in production for some time to come as the Republic of Korea Air Force plans to replace two Hawker 800s with the type, while the French Navy has ordered up to 12 Falcon 2000XLS-based Albatros maritime patrol aircraft for delivery from next year



Falcon 2000 developments

Dassault was keen to keep refreshing the Falcon 2000 and announced a second model – the 2000EX – with a longer 3,800nm range and more powerful PW308C engines, which was approved in March 2003. Two years later, the basic Falcon 2000 was upgraded as the 2000DX with PW308C engines, gaining a little more range and featuring Dassault's EASy (Enhanced Avionics System) cockpit management system based on a Honeywell Primus Epic navigation suite, but only four were built.

The most recent versions are the Falcon 2000S

which is a lower-cost version with some aerodynamic adjustments to give better short field performance and the Falcon 2000LX which has Aviation Partners winglets and a range of 4,000nm. When fitted with the performance enhancements of the 2000S, this is offered as the Falcon 2000LXS.

The X-planes

The Falcon 900 was a popular aircraft with a wide cabin and the ability to reach most popular city pairs, but even more range was called for and Dassault had its eyes on improved aerodynamics.

▲ The Falcon 8X had been the business jet line's flagship prior to the 6X's entry into service



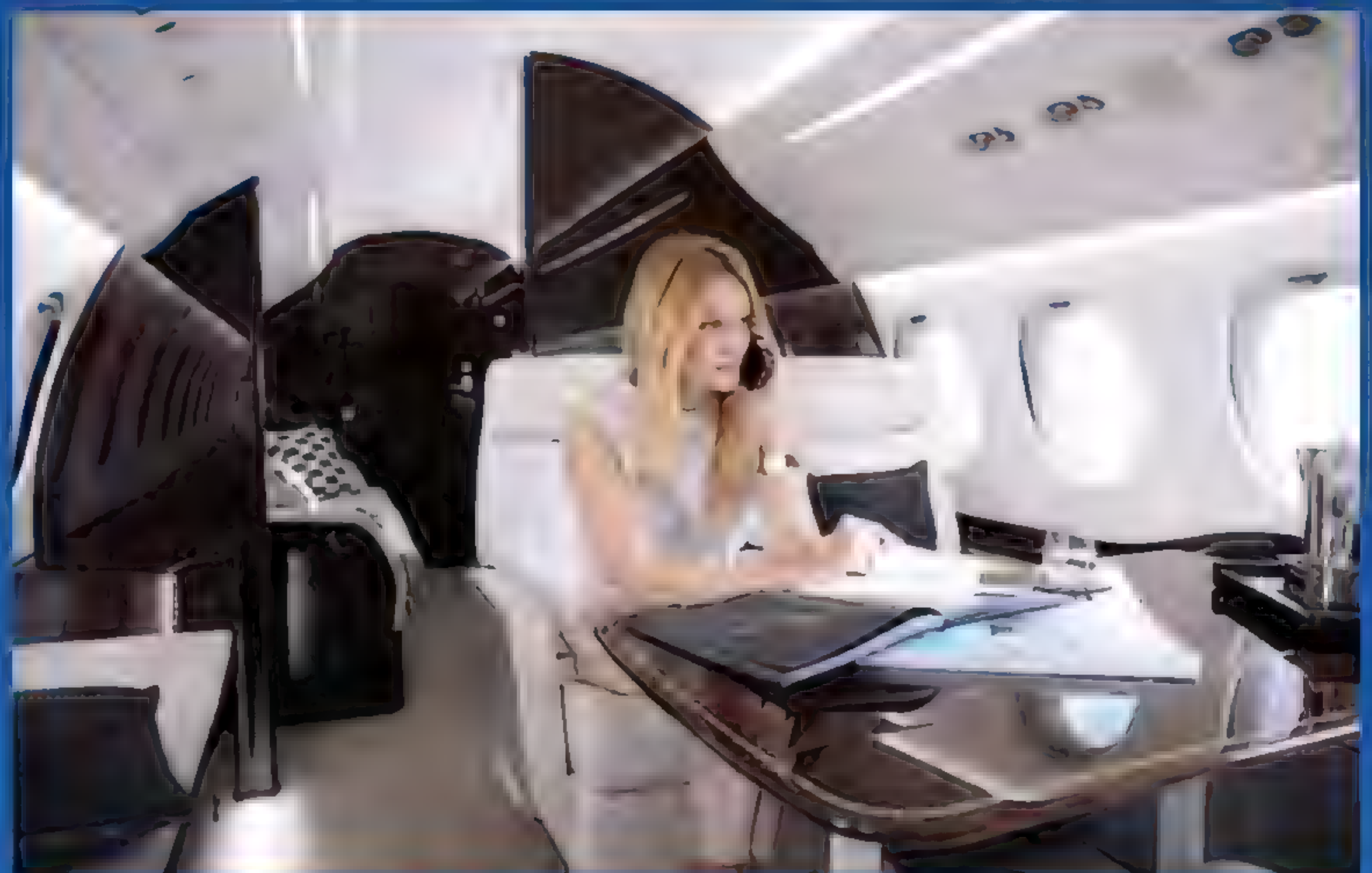
“Today, Dassault is in full production with the 2000LXS, the 6X, the 8X and the venerable 900LX”

◀ The 8X features a third-generation EASy enhanced avionics system as part of its flight deck

In June 2001 the airframer announced the FNX project and, later that year, it was launched as the Falcon 7X. It would have a 5,950nm range, a longer cabin than the Falcon 900, fly-by-wire controls and the EASy flight deck found on other Falcons. It had a new advanced technology slim swept wing which benefited from Dassault's high speed military jet designs and gave the aircraft a cruising speed of Mach 0.9. The number '7' was chosen to allow further larger and smaller new models to be added later.

Because it would have to cover very long journeys, the cabin of the Falcon 7X was wide, tall and long. Typically, there were two four-seat areas and a rear executive suite with a chair, workstation and a three-place divan. There would be a crew rest area at the front, a galley, a rear lavatory and access to the baggage area in the tail. Power is supplied by a trio of 6,402lb st Pratt & Whitney PW307A turbofans and the prototype F-WFBW (c/n 001), first flew on May 5, 2005. The Falcon 7X was positioned to be able to fly eight passengers non-stop from Paris to Los Angeles, Sao Paulo or Singapore, or New York to Riyadh. Certification of the Falcon 7X was achieved in 2007 with the first delivery, of VP-BGG (c/n 005) to The Chagoury Group in the USA, on June 13. The 7X's orderbook quickly swelled to \$1.1bn with commitments for 24 aircraft, later rising to 33, from fractional operator NetJets Europe. The 200th Falcon 7X was delivered in 2013 and the 300th a decade later in 2023.

The Falcon 7X provided a sound basis for further models and Dassault's next move, announced in May, 2014, was to enhance the aircraft as the Falcon 8X. The cabin was lengthened by more than 3ft and the range was increased to 6,450nm. The wings were made lighter with improved winglets and a new leading edge profile and the aircraft had two 6,322lb st PW307A engines. The powerplant featured the third-generation EASy system and redesigned following 19 minor design elements for the Falcon 8X. The Falcon 8X prototype F-WWGA (c/n 401) flew on February 8, 2015, and first delivery



took place in 2016. By mid-2023, Dassault had completed the 100th example of the 8X which has now fully replaced the 7X in production.

The Falcon 5X and 6X

In the mid-2010s business jet competition was fierce. While some operators required very long-range, others were flying much shorter routes in Europe, the USA and the Far East. This latter camp was more interested in passenger comfort and travel utility and Dassault recognised there was a place for an aircraft with a bigger cabin than the Falcon 2000. It began developing a completely new model – the 5X – which would use a pair of 11,450lb st Safran-Snecoma engines. Its range was shorter than that of the 7X at 5,200nm and to not beat the Falcon 2000 and the 3100 it introduced a bigger cabin and a fly-by-wire system that is the first in its class. The aircraft was certified in 2018 and first delivery took place in 2019.

▲ Dassault Aviation has time and again prided itself on its products having one of, if not the widest cabin in their respective classes

▼ The 7X has been fully replaced in production by the larger and longer 8X variant





▲ The 6X has a range of 5,500nm which enables it to connect city pairs such as Los Angeles and Geneva, London and Sao Paulo, and Paris and Johannesburg

▼ The Falcon 6X's cabin measures 8ft 6in wide – just three feet narrower than that of a Boeing 737 BBJ MAX

(c/n 002), commenced in July 2014 and the jet was rolled out on June 2, 2015 making its first flight three days later. Testing progressed but problems with the Silvercrest powerplants started to emerge, particularly with the engine's high-pressure compressor at high altitudes. By 2016, it became evident that the issues would take time to resolve and Dassault made the difficult decision to abandon the 5X. Instead, the manufacturer would turn to the more powerful 14,000lb st Pratt & Whitney PW812D and redesigned the aircraft to accommodate the larger engines. This resulted in the Falcon 6X which gained a slightly longer 40ft 4in cabin with 28 large

windows. The range was 5,500nm and the Falcon 6X would fly at a very respectable Mach 0.9 cruise speed. It could accommodate up to 16 passengers in considerable comfort in a three-zone layout and up to 19 in a high-density configuration. Following a first flight on March 10, 2020, testing proceeded smoothly with FAA and EASA certification achieved in August, 2023 and the first 6X was delivered to a customer on February 21, 2024.

Special missions

Today, Dassault is in full production with the 2000LXS, the 6X, the 8X and the venerable 900LX. These aircraft are serving all over the world with major corporations but there are many that fulfil key tasks outside the business aviation sector. Dassault's jets, particularly the Falcon 20, have always been popular as governmental transports and for special missions roles. Dassault is in competition with Gulfstream and Bombardier for this market but around 50 new generation Falcons are in service along with 25 Falcon 900s.

While the majority of these are governmental or VIP transports, the Falcons are ideal platforms for other roles. In November, 2020 it was announced that the French Navy would acquire up to 12 Albatros maritime patrol aircraft based on the Falcon 2000LXS for delivery from 2025. The Albatros will have a multifunction radar under the fuselage, observation windows and facilities for dropping Search & Rescue kits. In addition to the Albatros, the French DGA (Defence Procurement Agency) has contracted with Dassault for the Archange strategic airborne



► The Falcon 5X made its first flight in October 2017 and amassed 50 flight test hours before engine issues forced the manufacturer to abandon the programme



“The next project is the even larger Falcon 10X which was announced in May 2021”

▼ The 10X is slated to enter service in 2027 and the manufacturer hopes it will shake up the larger end of the business jet market with its class-leading cabin, 7,500nm range and ability to operate into London City Airport

intelligence programme which features three Falcon 8Xs equipped with a THALES universal electronic warfare system.

The Japanese Coast Guard operates six Falcon 2000 MSAs which operate on drug interdiction, fishery patrol and search and rescue, and in 2021 it was announced the Republic of Korea Air Force, which already uses a pair of SIGINT Falcon 2000s, would acquire six new ISR (Intelligence, Surveillance and Reconnaissance) Falcon 2000LXs to replace existing Hawker 800s. Falcons also play a key role in aeromedical work with a number dedicated to casualty evacuation. Although the aircraft has just one forward door, a stretcher lift has been devised which raises and turns a stretcher so it can be taken into the cabin.

Future Falcons

Dassault has always been adept at keeping ahead of trends and judging demand to ensure its models attract customers in the very competitive business

jet market. The next project is the even larger Falcon 10X which was announced in May 2021. This super large, ultra-long range business jet will have a range of 7,500nm and be powered by two 18,000lb st Rolls-Royce Pearl turbofans. Carrying up to 19 passengers, it will have an even taller, wider and longer cabin than its sisters and will fly even faster at up to Mach 0.925. It should be flying by late 2025 or early 2026.

In the mid-1990s, Dassault looked closely at a supersonic business jet. It had a double delta layout and was designed to fly at Mach 1.8 but it proved impossible to find an engine which would deliver the required performance. The project was abandoned in March 1999 and since then the company has kept it under consideration but cannot see a solution to the sonic boom problem or noise and emissions issues. Clearly, this has gone away but we can be sure that Dassault will continue to build innovative products which have enthusiastic market acceptance.

AN



APACHE'S NEW TEETH

Chris Croot provides an insight into the Army Air Corps' latest rotary attack platform, the AH-64E

▼ Two AH-64E Apaches receive fuel from Royal Air Force Chinooks at RAF Odiham during Exercise Iron Titan. This concept allows the rapid movement of fuel to forward locations for quick turnarounds of Apache

The Westland/Boeing Apache AH1 has provided the British Army with a world-beating attack platform for the better part of two decades. It saw extensive use in the skies over Afghanistan, delivering vital close-air-support (CAS) to UK and coalition partners. The aircraft was also employed over Libya, for which it was 'marinised' for operations from the Royal Navy's carriers.

In order to capitalise on the latest technological advancements and maintain its ability to successfully support ground forces, the Army Air Corps (AAC) requires a new attack helicopter. Boeing's AH-64E Guardian was the natural choice. Airframe commonality aids the transition of aircrew and engineers and allows the AAC to build on its past operating experience rather than begin the learning process again with a new platform.

The UK Ministry of Defence (MoD) announced on July 11, 2016 the purchase of 50 AH-64E v6 in a deal worth \$2.3bn. The first two aircraft were delivered to the UK onboard a Boeing C-17 Globemaster III in November

2020 with a gradual build-up of the fleet continuing until January 2022 by which time 14 aircraft had been delivered and the type entered service. Delivery of the final aircraft is slated for summer 2024.

The AH-64E is a generational change for the AAC, its design is centred around four key pillars: lethal, survivable, agile, and integrated.

Lethal in battle

To maintain its lethality on the battlefield, the AH-64E has received upgrades to all its weapon systems except for the M230 30mm chain gun – though new avionics processors will provide faster firing solutions.

The aircraft's primary anti-armour weapon will initially remain the AGM-114L Hellfire until the new Romeo variant is introduced to service. A second new weapon, the AGM-179 Joint Air-to-Ground Missile (JAGM) has also been procured. The JAGM uses a dual-mode Semi-Active Laser





(SAL) and millimetre wave (MMW) radar to provide a fire-and-forget capability against static and mobile land and maritime and even airborne targets. The seeker-head and guidance unit is mounted to the body of an AGM-114, allowing it to be mounted to the AH-64E without modification of the weapon rails.

Replacing the CRV-7 rockets currently employed on the AH1 is the Hydra 70, 2.75in rocket. Like the CRV-7, a standard Hydra rocket is unguided, however when fitted with the AGR-120/APKWS (Advanced Precision Kill Weapon System) it becomes a precision-guided

munition. This will offer crews a low-yield weapon with a significantly reduced collateral damage risk.

Enduring platform

Many of the survivability and redundancy features which make the Apache such an enduring platform are retained in the AH-64E. These include double and triple redundant flight control systems, self-sealing fuel tanks and Kevlar armour surrounding the cockpit capable of withstanding a 23mm projectile. Toughened glass provides ballistic protection to the

▲ An AH-64E flies low over Salisbury training area during Exercise Iron Diabolo, a sub-exercise within Exercise Iron Titan. This aircraft is armed with two Hydra 70 rocket pods and AGM-114 Hellfire rails. Note the carriage of four captive training missiles under the wings All images Crown copyright unless stated





▲ The delivery of the first AH-64E to RAF Brize Norton during 2020. Two Apaches can comfortably be carried by the C-17 Globemaster, allowing the rapid delivery of rotary attack across the globe

— The crew of a 3AAC AH-64E conduct final pre-take off checks prior to departing on a routine training sortie. Note the Link 16 data-link aerial visible on the left stub-wing Chris Croot

crew and should the pilot be incapacitated, the aircraft can be fully controlled from the front cockpit. Note it is an aircraft typically flown from the rear while the co-pilot/gunner occupies the front seat.

In the event of a crash/hard landing the aircraft's chin-mounted M230 30mm gun is designed to collapse into a recess creating a flatter fuselage reducing the chance of a roll-over. In addition, the wing pylons shear-off, strengthened landing gear absorb much of the impact and crash resistant seats protect crews from the sudden cessation in motion.

Super agile

Despite substantive upgrades throughout its life the Apache has remained a manoeuvrable aircraft and this remains true with the AH-64E. With a reduction in airframe weight, addition of composite rotor blades and new General Electric (GE) T700-701D turboshaft

engines, the aircraft remains a highly agile platform. The new engines are somewhat unusually, less powerful than the AH1's Rolls-Royce Turbomeca RTM322 units, but this does not signal a regression in performance. Gearbox limitations on the AH1 prevented full power utilisation of the Rolls-Royce engines, however the AH-64E's upgraded face gear transmission addresses this issue and grants access to the GE engine's full power range.

This increase in available power means the AH-64E is now able to single engine hover, increasing survivability. A much more compact engine than its predecessor, the T700 is easier for engineers to access to complete servicing and maintenance requirements.

The agile pillar reaches further than the physical movement of the aircraft, it also includes improvements to aid the crew's task prioritisation and reduces workload. This is achieved through an impressive new feature called the Cognitive Decision Aid System (CDAS). The system works by scanning for incoming radar emissions and comparing them to a known database. It then identifies potential threat emissions to the crew before providing a safe navigational route or targeting solution while remaining outside of the threat envelope. CDAS also utilises surrounding topographical features to provide terrain masking routings.

Integrated networks

To improve situational awareness the AH-64E is equipped with the Link-16 tactical data link which allows the secure, near real-time transfer of imagery, voice and text communication to other networked platforms.





AH-64E can also utilise the Rover data link derived system, MUM-T (Manned/Unmanned Teaming), a SATCOM (Satellite Communications) link which gives pilots the ability to watch and share live feeds from unmanned platforms such as the MQ-1C Gray Eagle and RQ-7 Shadow.

The aircraft's distinctive Longbow FCR (Fire Control Radar) has been upgraded and now has an effective range of 16km over land and sea, vs the original 8km. Maritime operations are not yet a confirmed role of the AAC's AH-64E, however the radar is now capable of identifying different classes of ship and providing suitable targeting and firing solutions.

Entry to service

Rather than being new-build aircraft, the AH-64Es are in fact re-manufactured AH1s. The donor airframes are sent to Boeing's Apache production facility in Mesa, Arizona to be stripped and upgraded before being returned to the UK. Upon arrival at Wattisham Airfield, Suffolk, the aircraft are received by 7 Aviation Support Battalion Royal Mechanical and Electrical Engineers (REME) and their Engineering Acceptance Team (EAT).

The Battalion, supported by civilian contractors, provides all line and in-depth servicing to both of Wattisham Airfield's two resident Apache units, 3 and 4 Regiment AAC. The EAT conducts a series of introduction-to-service tasks. This includes in-depth delivery inspections which aim to spot and rectify any manufacturing defects and a full inventory of the airframe. Several substantial parts are removed, inspected and reinstalled, notably rotor blades, rotor assemblies, communications antennas and torque tube de-rotation unit.

Once delivery inspections and any required engineering is complete, the Army's Maintenance Test Pilots (MTPs) begin a series of flight test profiles. The MTPs use these tests to identify any issues with the airframe, from handling and performance through to avionics and systems. It is imperative the aircraft are in the best possible condition before they are delivered to the front-line squadrons and transition to line-flying.

The unit tasked with introducing the AH-64E to service is 3 Regiment Army Air Corps. It will be building an initial cadre of combat-ready pilots and developing new and existing tactics.

The aircraft made its exercise debut during Talon Guardian in October 2022 during which the Regiment participated in a range of mission sets. Crews

deployed to Otterburn Ranges, Northumberland and were tested against simulated surface-to-air missile (SAM) threats at RAF Spadeadam before flying south to Salisbury Plain Training Area, Wiltshire. While here the AH-64E was tested in its anti-armour role, hunting Challenger 2 main battle tanks. Both aircraft and tank crews attempted to utilise the surrounding terrain to their advantage – hunting and hiding.

Operating in the open exposes attack helicopters to SAMs and MANPADs (Man-Portable Air Defence Systems), as well documented in Ukraine, and so AAC crews must train to counter these threats. While flying over Salisbury Plain the Regiment's crews simulated battles against 12 Regiment, Royal Artillery and its Stormer self-propelled Starstreak air defence systems.

In October 2023 the Regiment and the AH-64E were declared ready for frontline duty after the completion of Exercise Iron Titan. According to a British Army news release, the exercise tested the regiment in its core role providing an aviation deep attack battlegroup working in partnership with Wildcat reconnaissance helicopters of 1 Regiment AAC.

During the six-week exercise 3 AAC deployed from Wattisham to Nesscliffe, Shropshire before relocating to Eaglescott and Chivenor, Devon. From these locations crews conducted long-range simulated strike missions to Otterburn, Northumberland and Lydd, Kent. Forward Arming and Refuelling Points (FARPs) were strategically established at selected locations and operated by members of 7Bn REME.

▲ In their environment. Two AH-64Es fly low over Westdown Camp, Salisbury during Exercise Iron Titan. The mix of Hellfire and Hydra 70 gives the formation flexibility to engage a range of targets

“To maintain its lethality on the battlefield, the AH-64E has received upgrades to all its weapon systems”

▼ Looking to the future. An AH1 flies past a road convoy delivering a brand new AH-64E to Wattisham Airfield. The AH1 is set to leave AAC service later this year



Between Mexico and Motor City

Karl Nixon sheds a light on Laredo International Airport, southern Texas's car component cargo king

Laredo, Texas, is a small, inconspicuous city on the Rio Grande river – a stone's throw from the Mexican border. Despite this, it is one of the safest cities in the US and home to the country's largest inland port. It is this second

fact that makes its international airport among the most interesting in North America. Each day, a wealth of cargo flights arrives from Mexico, and nearly as many depart in the opposite direction, to Detroit, Michigan.



This Boeing 727-200, N729CK (c/n 22982), is the last example of the type in service with Kalitta Charters II. It is set to be withdrawn from service later this year

USA Jet Airlines operates an eight-strong MD-80 fleet, comprising seven ex-Delta Air Lines MD-88s and a sole ex-Spanair MD-83



Everts Air McDonnell Douglas MD-83SF, N964CE (c/n 53078), is one of two Alaskan Mad Dogs based at Laredo on ad-hoc freight work All images Karl Nixon unless stated



So, what makes Laredo a halfway house between Mexico and Detroit? The answer is car parts, which are manufactured cheaply in Mexico then hauled up to the major assembly plants in 'Motor City'. It would make far more sense for components to fly direct from Mexico to Michigan but for the need to clear customs on entering the US. It is this role that Laredo airport chiefly fulfils. Much of the freight carried by the various cargo aircraft doesn't actually get offloaded at Laredo, but remains on board while a quick customs check is completed. Once greenlit, the load is then free to continue its journey northbound.

The aircraft involved in this unrelenting airbridge can involve anything from Saab 340s and Swearingen Metroliners to McDonnell Douglas DC-9s and Boeing 727s. The freight traffic, unsurprisingly, is very similar to that seen at Detroit Willow Run, which is the final destination of the majority of these flights, although some use Oakland County International Airport.

For those looking to photograph aircraft in sunshine, the odds of a good photo are typically much better in Southern Texas. The main based carrier is USA Jet, which maintains a fleet of

AmeriStar McDonnell Douglas DC-9, N782TW (c/n 45826), first delivered to Continental Airlines in March 1967, and later flew for Air Canada, Air Florida, Cayman Airways, Ross Aviation and Sierra American Corporation, before joining its current employer in 2015 Jack Crompton



One of the less interesting visitors, but still a welcome sight to European eyes – this Envoy E175, N230NN (c/n 17000550), operated a mid-evening American Airlines service from Dallas Fort Worth



Keeping the Detroit production lines stocked with components is almost a round-the-clock operation
Jack Crompton

ex-Delta MD-88s, Dassault Falcon 20s and a sole 727. Mexican outfit Aeronaves TSM also has a large presence, with several daily flights using Metros, Bombardier CRJs, 737s, DC-9s and MD-80s. Other

regulars include Everts, which has based a pair of MD-80s at Laredo; DC-9 operator Ameristar; IFL; Kalitta Charters II; Alpine Air; Legends Airways; iAero; JSX; Ameriflight; Berry Aviation; Freight



McDonnell Douglas MD-88, N832US (c/n 53259), is the sole USA Jet aircraft wearing the carrier's old livery. USA Jet's Mad Dogs are based at Laredo but, due to the nature of freight hauling, they can be away from base for days at a time



Runners Express; and Sierra West Airlines.

If you're really lucky, you might see one of a couple of Ukrainian-registered An-12s currently based in the region. Adding to the thrill, the general air cargo and car part shuttle flights have no set schedules and can turn up at any time, without warning.

There are several other cargo carriers with a presence at Laredo, such as UPS, DHL and FedEx Express, whose operations are unaffiliated with the automotive industry. Obviously, the city's population has its needs and freight of a less 'mechanical' variety also finds its way there, sometimes aboard equally exciting classics.

The airport also handles a number of daily American Airlines and United Airlines flights from Dallas and Houston, respectively, as well as a handful of weekly Allegiant Airlines services. However, when you've a decent chance of seeing a couple of active 727s a day, it's easy to disregard the comparatively uninteresting commuter flights! Besides, the freight ramps and passenger terminal are on opposite sides of the



▲ This IFL Group Dassault Falcon 20-5, N511FL (c/n 122), is one of eight used for time-sensitive shipments. It was first imported into the United States by Pan American World Airways as N4342F in 1968 Jack Crompton



▲ The majority of Aeronaves TSM flights are operated by Swearingen Metroliners – including this example, XA-SUS (c/n AC-430), which previously flew with AeroPacífico on contract for DHL

airfield, separated by the two parallel runways, so there's no one area from which to monitor or photograph all movements.

It's important to note that it's entirely potluck as to what will turn up during your time here. Aeronaves TSM DC-9s are normally pretty common, but I didn't see a single one during my six-day visit. Of course, a week either side, they were in and out like a fiddler's elbow!

AN

This Boeing 737-300, PP-YBD (c/n 24463), is now part of the Aeronaves TSM fleet and, at the time of the author's visit, was parked at Laredo waiting to be transferred on to the Mexican registry



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AVIATION

NEWS

Paul Treadaway performs an engine run at a recent nightshoot at Sywell, Northamptonshire, in Fighter Aviation's Commonwealth CA-18 Mustang, G-JERK (c/n 1435) '44-15152' *Jersey Jerk*. The aircraft – the latest Mustang on the UK warbird scene – is set to begin operating passenger flights and appearing at airshows from later this year. Steve Kivington



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Nights out at Northolt


Richard Vandervord looks back on a decade-and-a-half of RAF Northolt nightshoots



 This 1965-built Swedish Air Force North American Tp86 Sabreliner, 86001 (c/n 282-49), is arguably the rarest aircraft to have attended one of the London hub's evening photoshoots, doing so in March 2013. It was retired in late 2023 and is set to be replaced by a Bombardier Learjet 60, the former M-ABSC (c/n 60-306)


 While modern military assets comprise the most frequent visitors at Northolt, demobbed training types and even World War Two fighters such as Hawker Hurricanes have visited the former Battle of Britain fighter station




 The Polish Air Force visited in October 2016, bringing a pair of PZL130 Orliks and an Airbus Military C295M. The Poles have strong links to RAF Northolt, with 303 Polish Fighter Squadron having flown and fought from the base during the Battle of Britain

Snapshot




 The Franco-Belgian Advanced Jet Training School at Cazaux was a big supporter of Northolt's evening events, often bringing one or more Alpha Jets to the London airfield. However, these aircraft were overwhelmingly Armée de l'Air et de l'Espace examples. This trend was broken with the October 2018 event when a pair of Belgian Alpha Jets attended, including this example, AT-33, with special markings




 This Embraer EMB-121 Xingu, 078 (c/n 121078), attended the most recent event on March 7, 2024. It wears special markings to celebrate 40 years of Xingu operations with the Armée de l'Air et de l'Espace



 The tradition of Cazaux-based training units crossing appearing at Northolt has continued after the transition from Alpha Jet to PC-21



 The most recent nighttime event at Northolt included what is almost certainly the final UK public appearance of a German Navy Lockheed P-3C Orion

 The Belgian Navy's Sud Alouette IIIs were infrequent visitors to the UK, especially in the type's final years with the air arm. However, this example, M-3 (c/n 1817), was present at Nightshoot XXVI







 This RAF Grob G.109B Vigilant T1, ZZ193 (c/n 6572), made the type's sole nighttime appearance at Northolt in October 2013



 This French Army Aerospatiale SA342M Gazelle, 3862 (c/n 1862), was one of a pair that attended at the 21st event in October 2016

 An October 2013 night photocall would prove to be the final public event attended by an RAF C-130K Hercules



 The London air base's location poses challenges for organisers to secure the participation of fast jets. Nevertheless, RAF Tornado GR4s visited on two occasions before being retired in 2019



A gathering of Stampe-Vertongen SV.4s is planned for the weekend of May 11-12 at the type's Antwerp Airport birthplace Steve Lynes

April

- 17-20 AERO Friedrichshafen**
Bodensee-Airport Friedrichshafen, Germany
www.aero-expo.de
- 20 Cornish Pasty Charity Fly-in and Fun Day**
Bodmin Airfield, Cornwall
www.bodminairfield.com
- 20 Vintage Piper Aircraft Club Fly-in**
Sleaf Airfield, Shropshire
www.vintagepiper.co.uk
- 20 Pilot Careers Live**
Sofitel London Heathrow T5
www.pilotcareernews.com
- 20-21 Fête Aéropyrénées**
Perpignan Airport, Perpignan, France
www.aeropyrenees.com
- 21 Gatwick Aviation Fair**
K2 Centre, Crawley
www.threshold.aero
- 27 Bucker Jungmann 90th Anniversary Fly-in**
Brighton Airfield, North Yorkshire
www.realaero.com
- 27 Vintage Aircraft Club Spring Fly-in**
Turweston Aerodrome, Buckinghamshire
www.vintageaircraftclub.org.uk

- 27 British Balloon Museum and Library Vintage Balloon Inflation Day**
Pidley, Huntingdon
www.bbml.org.uk

- 27-28 Den Ve Vzduchu (Plasy Air Day)**
Plasy Airport, Czech Republic
www.denvezduchu.cz

May

- 3-5 British Aerobatics – Icicle Trophy**
Sleaf Airfield, Shropshire
www.aerobatics.org.uk
- 4 Boscombe Down Aviation Collection Aerojumble**
Boscombe Down Aviation Collection, Old Sarum
www.boscombedownaviationcollection.co.uk
- 4 Carrickmore Family Fun Weekend Fly-in**
C-More Flying School, Carrickmore Airfield, Northern Ireland
www.c-moreflyingschool.com
- 4-5 Microlight Trade Show**
Popham Airfield, Hampshire
www.popham-airfield.co.uk
- 5 VE Day Flying Day**
IWM Duxford, Cambridgeshire
www.iwm.org.uk

- 5 Spring Fly-in**
Easter Airfield, Fearn, Ross-shire
www.easterairfield.co.uk
- 5 Twente Flying Club 60th Anniversary Fly-in**
Enschede Airport Twente, the Netherlands
www.vliegclubtwente.nl
- 5 Fundación Infante de Orleans Flying Day**
Cuatro Vientos Airfield, Madrid, Spain
www.fio.es
- 10 Lancaster Night Photoshoot**
Lincolnshire Aviation Heritage Centre, Lincolnshire
www.timelineevents.org
- 11 Airexpo**
Muret-Lherm Airfield, France
www.airexpo.org
- 11-12 Antwerp Stampe Fly-in**
Antwerp International Airport, Belgium
www.stampeclub.com
- 12 Shuttleworth Best of British Airshow**
Old Warden, Bedfordshire
www.shuttleworth.org
- 12 Lancashire Aero Club Spring Fly-in**
Kenyon Hall Airfield, Warrington, Cheshire
www.lancsaeroclub.co.uk

- 12

LSZP Fly-in 2024
Biel-Kappelen Airfield,
Switzerland
www.lszp.ch
- 15-22

Grunau Baby Meet
Strausberger Airfield, Berlin,
Germany
www.fliegerclub-strausberg.de
- 16-19

**Grumman Owners and Pilots
Association Europe Fly-in**
Oban and the Isles Airport,
Argyll and Bute
www.aya.org
- 17-18

Private Flyer Fest South
Wycombe Air Park, Buckinghamshire
www.privateflyershow.com
- 17-19

Chipfest
Leicester Airport, Leicester
www.dhc1chipmunkclub.co.uk
- 18

Moth Fly-in
Brighton Airfield, North Yorkshire
www.realaero.com
- 18

Abingdon Air and Country Show
Dalton Barracks, Oxfordshire
www.abingdonairandcountry.co.uk
- 18

**British Aerobatics - Fenland and
McLean Trophies**
Fenland Airfield, Lincolnshire
www.aerobatics.org.uk
- 18-19

Vintage Aircraft Club Fly-in
Bodmin Airfield, Cornwall
www.bodminairfield.com
- 18-19

Le Temps des Helices
La Ferte Alais, France
www.letempsdeshelices.fr
- 25

Vintage Festival and Hangar Dance
Lincolnshire Aviation Heritage
Centre, Lincolnshire
www.lincsaviation.co.uk
- 25

Vintage Piper Aircraft Club Fly-in
Perth Airport, Perthshire
www.vintagepiper.co.uk
- 25

Challenge Bederty 2024
Zoersel/Oostmalle Airfield,
Belgium
www.ebzt.be
- 25

**Marne-Grand Est International
Air Show**
Paris-Vatry Airport, Vatry, France
www.airshowdisplay.fr
- 25

Fly-in Cinema
Texel International Airport,
the Netherlands
www.texelairport.nl

- 25-26

Shuttleworth D-Day Weekend
Old Warden, Bedfordshire
www.shuttleworth.org
- 25-26

Gap-Tallard Air Show
Gap-Tallard Airport, France
www.meeting-aerien-gap-tallard.com
- 25-26

Arbon Classics 2024
Arbon, Lake Constance, Switzerland
www.arbon-classics.ch
- 25-31

Vintage Glider Club National Rally
South Wales Gliding Club,
Monmouthshire
www.uskgc.co.uk
- 25-Jun 2

**18M Standard Class Nationals/20M
Multi-seat Class Nationals**
Lasham Gliding Society
www.gliding.co.uk
- 26

**Light Aircraft Association Wessex
Strut Fly-in**
Henstridge Airfield, Somerset
www.henstridgeairfield.com
- 26

Wings and Wheels 2024
Stow Maries Great War
Aerodrome, Essex
www.stowmaries.org.uk
- 26

**Kirkbride Airfield Open Day and
Fly-in**
Kirkbride Airfield, Cumbria
www.kirkbrideairfield.weebly.com
- 28-30

EBACE 2024
Geneva Airport, Switzerland
www.ebace.aero
- 30-Jun 2

Kehler Flight Days
Kehl Sundheim Airfield, Kehl, Germany
www.kehler-flugtage.de

- 31-Jun 2

**D-Day 80 North Weald
Embarkation**
North Weald Airfield, Essex
www.dday-80.co.uk
- 31-Jun 2

Midlands Air Festival
Ragley Hall, Alcester,
Warwickshire
www.midlandsairfestival.com
- 31-Jun 2

52nd Mull Annual Fly-in
Glenforsa Airfield, Isle of Mull
www.glenforsa.com
- June
- 1

**Harborough Summer Fest
(incl. air displays)**
Market Harborough
Showground, Leicestershire
www.explosiveevents.com
- 1

**British Aerobatics - McAully,
Newbold and Don Henry
trophies**
Compton Abbas Airfield,
Dorset
www.aerobatics.org.uk
- 1-2

**Duxford Summer Air Show -
D-Day 80**
IWM Duxford, Cambridgeshire
www.iwm.org.uk

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The 30th Aero Friedrichshafen general aviation show is to take place between April 17-20 Aero Friedrichshafen

A400M

NOT JUST A TRANSPORTER



Joe Champion concludes his two-part deep dive into the Airbus A400M's development, operators and future prospects

▲ Germany's A400M fleet is based at Wunstorf Air Base, but a second unit is due to stand up at Lechfeld in 2025. All images Airbus unless stated.

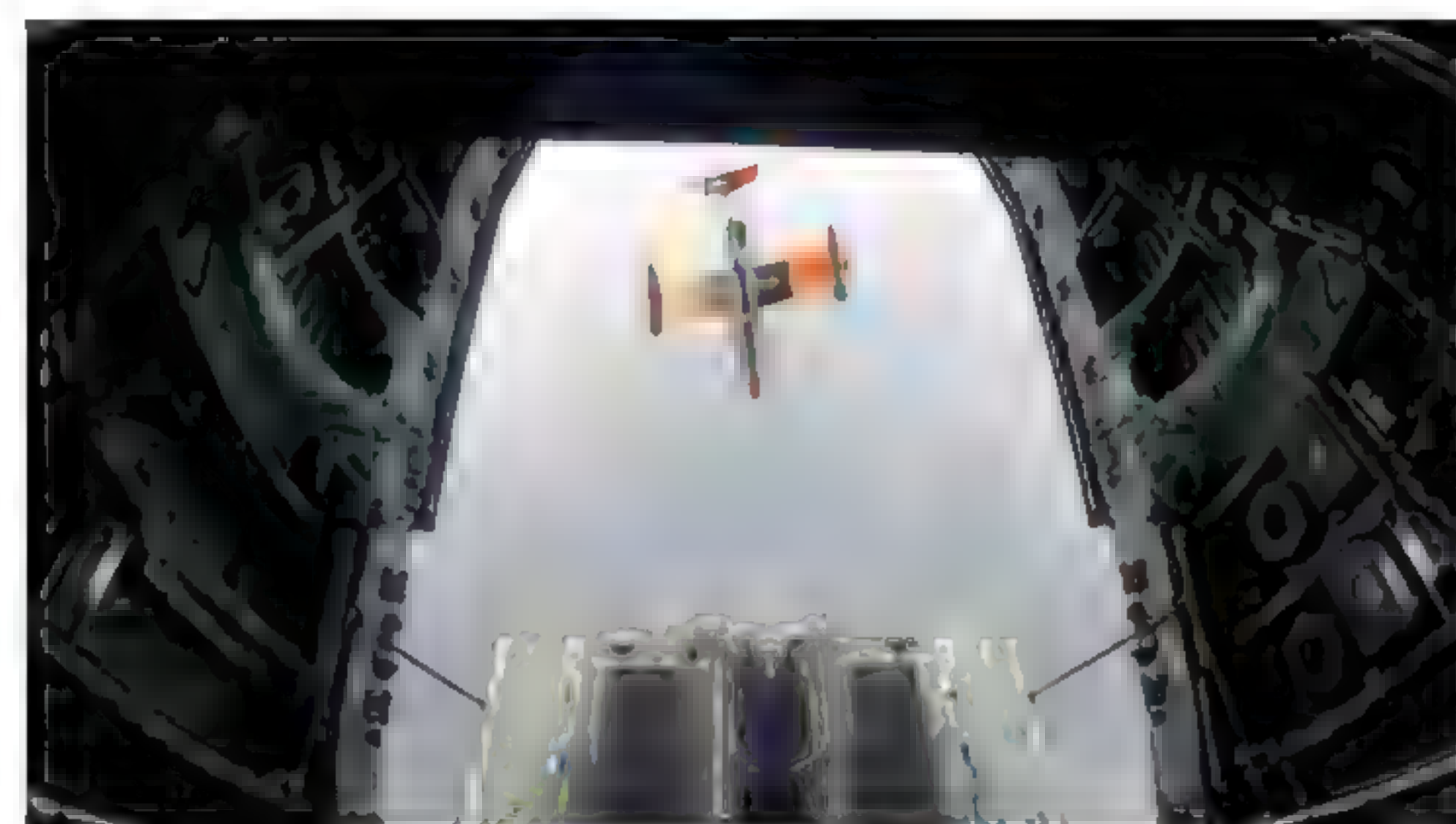
As the Airbus A400M passes a decade in service it continues to provide support in multiple theatres, not just as a transporter but also as a medevac aircraft and as an airborne tanker. Equally, the airlifter is being developed to undertake other disciplines, such as aerial firefighting, and serving as an airborne mothership to unmanned aircraft. Additionally, its use has extended beyond the original partner nations to include operators in Asia.

Aerial firefighter

The A400M added another string to its bow in the summer of 2022; Airbus Defence & Space performed test flights where a development aircraft was equipped with a roll-on/roll-off (ROLO) firefighting kit. This feature adds a capability that is also available to the Lockheed Martin C-130 Hercules and Embraer KC-390 Millennium, which are compatible with the Aero Union Modular Airborne Firefighting System II (MAFFS II). However, the larger A400M can carry 4,400gal versus the MAFFS II's 2,500gal.

The test flight occurred in Getafe, Spain; the A400M flew at a height of 150ft and as slow as 125 knots, highlighting the aircraft's diverse flight envelope. The test flights were carried out in collaboration with the Spanish Air Force 43rd Group and saw drops of 20 tonnes of water in under ten seconds from the ROLO kit.

The system is designed to be installed with no requirement to modify the individual A400M, thus can be installed at short notice on to any A400M in a nation's fleet. A tank is fixed within the aircraft cargo hold connected to two flood pipes which, when



► In December 2022, an Airbus Do-DT25 was launched from the ramp of a German Air Force A400M as part of trials that could lead to the type becoming an FCAS mothership in future.



activated by the pilot, vent from the A400M's ramp.

In late 2023, Airbus disclosed it had partnered with the Spanish Air and Space Force on a new test campaign with an upgraded version of the firefighting kit, which included dropping 20,000 litres of water over 400m in a single discharge – a 30% increase in efficiency, while the tanks were filled in ten minutes using standard high-pressure pumps on the ground.

FCAS Mothership

The A400M looks to play its part in force multiplication in line with the Future Combat Aircraft System (FCAS) that is currently under development by Dassault Aviation, Airbus and Spain's Indra Sistemas for the French, German and Spanish air arms. In December 2022, Airbus – alongside the Bundeswehr, the Deutsches Zentrum für Luft- und Raumfahrt (DLR; German Aerospace Centre) and German companies – successfully launched an Airbus Do-DT25 remote carrier 'Loyal Wingman' flight test demonstrator from an airborne A400M.

The modified Do-DT25 was launched from the A400M's rear ramp – its engines were powered up and the A400M crew handed over control of the drone to an operator on the ground. That operator flew and landed the drone.

With an objective to multiply the force and extend the range of UAVs, the plan is for the A400M to be a mothership that will fly the drones as close to the battlefield as possible to support manned aircraft and release up to 50 small or 12 heavy remote carriers. The remote carriers will then fight alongside manned aircraft.

Germany: biggest operator

Germany received its first A400M at the end of 2014. At the end of the last century, the nation had been considering the Ukrainian-built Antonov 70 to replace its fleet of Transall C-160s. However, an order for 60 A400Ms was placed on May 27, 2003;

The European-built airlifter first undertook aerial firefighting trials in summer 2022





this was later reduced to 53 aircraft, of which 43 had been delivered at the time of *Aviation News* going to press. It is expected that the last of these airlifters will be delivered by 2026, making Germany the biggest operator of the type.

The Luftwaffe's Lufttransportgeschwader 62 (LTG62; 62 Air Transport Wing) operates a fleet of A400Ms from Wunstorf Air Base near Hanover, Germany. The unit flies the airlifter to all areas in which the German Armed Forces operate; including flights to Jordan, Mali and Afghanistan. It is expected that a second A400M base will be established at Lechfeld in Bavaria, with the unit due to receive its first aircraft in 2025.

The first air-to-air refuelling (AAR) capable A400M arrived in June 2017. Two years later, Germany pioneered the AAR capability by being the first nation to deploy the A400M operationally as an airborne tanker. LTG62 deployed to Muwaffaq Salti Air Base, Jordan, to support Luftwaffe Tornado IDS aircraft on Operation Counter-Daesh.

The unit utilises the A400M for other missions, such as static line, CDS and military free-fall airdrops, unpaved operations and tactical air-land operations. The unit is in the process of also gaining qualifications to receive fuel with the A400M, while Germany has previously dispatched the type to Sudan and Afghanistan on evacuation missions.

In late 2023, Airbus broke ground on a new state-of-

the-art A400M maintenance centre next to Wunstorf Air Base; it is planned to enter operational service in mid-2027.

Malaysia: first export operator

Malaysia became the first non-European and first non-partnership nation operator, having signed for four examples at the 2005 Langkawi International Maritime and Aerospace Exhibition (LIMA). Fast-forward to March 12, 2015, the Royal Malaysian Air Force (RMAF) received its initial A400M, M54-01 (c/n 22), with delivery of all four airlifters completed two years later, to the day.

The fleet of four is operated by No 8 Squadron at Subang/Sultan Abdul Aziz Shah Air Base in Kuala Lumpur. The RMAF operates the A400M for the transport of cargo and passengers, humanitarian and disaster relief, as well as more tactical operations such as dropping paratroopers, airdrop and low-level flight. Malaysia also uses the A400M for air-to-air refuelling for all its fighter aircraft types with two sets of the refuelling pod kits.

No 8 Squadron carried out humanitarian efforts in October 2018 after the earthquake and tsunami in Palu, Indonesia, which the RMAF would not have previously been able to conduct. The unit deployed one A400M with a payload including fuel trucks and excavators. On top of this and other disaster relief missions, Malaysia

✦ Malaysia was the first non-European operator of the type

➤ The ability to insert paratroopers into contested areas has been a priority for many A400M operators

“The airlifter is being developed to undertake other disciplines, such as aerial firefighting”

✦ Germany is to become the largest operator of the type, with a full complement of 53 set to be in service by 2026
Joe Campion





▲ Belgium and Luxembourg's combined airlifter fleet is based at Melsbroek Air Base, in the northeastern corner of Brussels Airport

▼ The Spanish Air and Space Force received the 100th production A400M, T.28-08 (c/n 101), in March 2020

sent a 106-strong medical contingent with three field hospitals on board two A400Ms to Turkey following the earthquakes that struck the country early last year.

In 2022, the RMAF received an award from Airbus for becoming the first A400M operator to accumulate more than 10,000 flight hours in 2021 – a very significant award considering the fleet size of the RMAF's A400M force compared with other operators.

Spain: the 100th A400M

On December 1, 2016, the Ejército del Aire (Spanish Air and Space Force) took ownership of its first A400M: T-23-1 (10074)/'31-21' entered service at Zaragoza Air Base with transport unit Ala 31. It was another two years before the second, '31-22', arrived there.

Aviation News spoke to the unit about its A400M fleet, which is, at the time of writing, 14-strong from an order for 27. Deliveries are set to conclude in 2027. It operates the aircraft in both tactical and strategic environments and is certified for missions such as tactical airdrop including high altitude, low opening (HALO) and high altitude, high opening (HAHO) insertions. The entire Ala 31 fleet can be equipped with the underwing pod probe-drogue system and five of the fleet are capable of having the Hose and Drum (HDU) kit installed on the rear ramp. The Spanish A400M is certified to refuel other A400Ms as well as the F/A-18 Hornet, Panavia Tornado, Eurofighter Typhoon or Dassault Rafale.

In May 2021, Spain took delivery of serial T.23-

10/10219 '31-30' (c/n 111): this was the nation's tenth A400M to be delivered to Zaragoza, but was also the 100th production A400M to be delivered to a customer.

The Spanish Air and Space Force, specifically, Ala 31 and its A400Ms, participated in the Sudanese Non-combatant Evacuation Operation as well as the Afghanistan evacuation in 2021, the response to the Turkish and Moroccan earthquakes, and other medical evacuation and aerial firefighting deployments.

Belgium and Luxembourg: first bi-national operators

Belgium and Luxembourg are the only bi-national A400M users. The A400M took over the transport role from the Belgian Air Component's C-130H Hercules after the type's retirement in 2021. No 20 Squadron, 15th Transport Air Wing, operates the A400M from Melsbroek Air Base in the northeastern corner of Brussels Airport.

The Luxembourg Armed Forces' first airframe, CT-01 (c/n 104), was the initial A400M, arriving in Brussels in October 2020. The full complement of eight was completed in January 2024 when CT-08 (c/n 133), arrived at Melsbroek. The final seven examples all wear Belgian Air Component markings, while Luxembourg Armed Forces titles and roundels have been applied to CT-01. The unit is working towards full operational capability in January 2025.





■ Kazakhstan is to receive its maiden A400M later this year. Currently, it is the only former Soviet nation to have acquired the aircraft

“As proven by its customers, it is far more than an airlifter”

■ Indonesia has signed for two A400Ms, with options to triple this number

Belgium's A400Ms can undertake multiple missions for the Belgian defence such as tactical land operations, low level flight and personnel drops comprising low altitude, low opening (LALO) and HALO/HAHO insertions.

In 2023, 20 Squadron proved the A400M's capabilities in a type first by performing a successful High Mobility Artillery Rocket System (HIMARS) Rapid Air Insertion (HIRAIN) mission. The HIMARS was loaded on to an A400M at Ramstein Air Base, Germany, flown to Lielvārde Air Force Base, Latvia, unloaded rapidly and taken to nearby military ranges where it launched three guided missiles. It was then loaded back on to the A400M, which departed back to Ramstein. This mission again proves the A400M as a force multiplier by deploying such systems quickly to any destination in the world.

In early March, Belgian A400Ms delivered vital humanitarian aid to Gaza. Also, 40 specialised military personnel were transported to Jordan. In October 2023, an A400M was dispatched to Tel Aviv and returned with 105 passengers, including Belgian and other EU citizens.

Kazakhstan

In September 2021, Airbus announced it had received an order for two A400Ms from Kazakhstan, bringing the total order of A400Ms to 176 and the amount of

customer nations to nine at that time. The first aircraft arrival is scheduled for the end of 2024 and the contract includes maintenance and training support for the A400M.

Indonesia

A November 2021 order from Indonesia brought the total and current order number to 178. A letter of intent that earmarked a potential follow-on sale for four additional airlifters was tacked on to the deal.

At the time of the deal's inking, Prabowo Subianto, Minister of Defence of the Republic of Indonesia, said: "The A400M is a truly multi-role platform and will greatly enhance the Indonesian Air Force's tactical air-to-air capabilities. This aircraft will play [an important] role in other key missions including paratrooping and heavy cargo transportation. We are also looking at additional A400M acquisition in the near term, with future A400M developments such as firefighting an important capability we are exploring jointly with Airbus. The A400M will become a national asset and the cornerstone for Human Assistance and Disaster Response missions, beyond its tactical and air-to-air capabilities."

Despite a few teething problems in the programme – which come with any military aircraft project of this scale and complexity – one can say the Airbus A400M is not only proving itself as a strategic transport aircraft within Europe, but as a tactical airlifter well suited for the doctrines of its operators worldwide.

It has recently proven its use of high speed and large payload capability in multiple and heavily scrutinised airlift operations around the globe and got the job done, bringing people to safety away from contested areas.

As proven by its customers, it is far more than an airlifter with many of the countries using it as an air-to-air refueller. Its manufacturer obviously doesn't think the A400M's envelope ends there as it has sought to add an aerial firefighting role to its already impressive resume, and continues to develop the type as a drone mothership to ensure its relevance continues into a new era of warfare, set to include loyal wingmen and manned-unmanned teaming.





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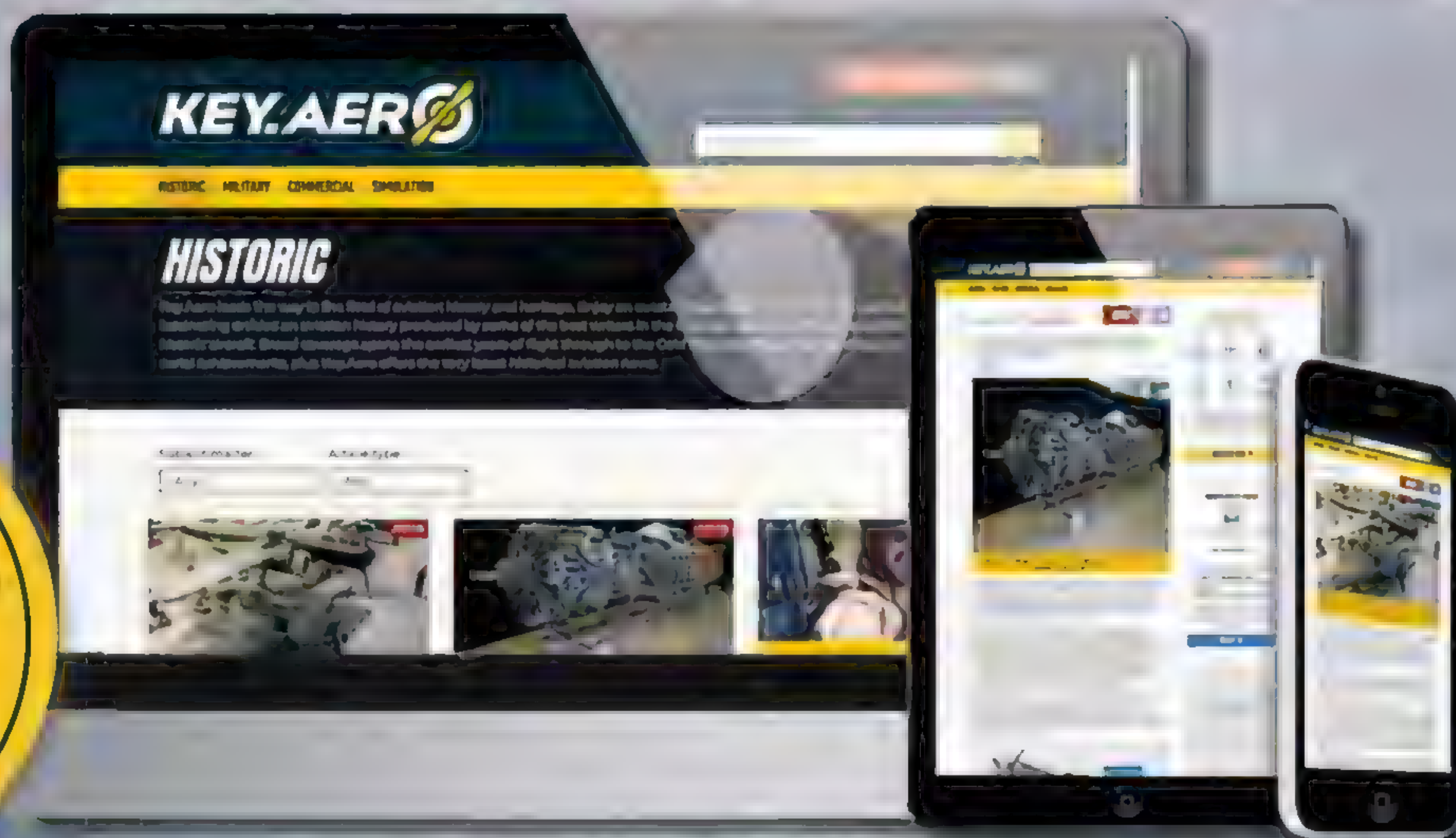
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SHOCK THERAPY

Many an airline would be desperate not to relive the memories of its past incidents and accidents. **Andreas Spaeth** discovers that Japan Airlines has a rather different approach to a 1985 crash in which 520 people lost their lives

The January collision of a Japan Airlines (JAL) Airbus A350-900, JA13XJ (c/n 538), and a Japanese Coast Guard de Havilland Canada DHC-8-300, JA722A (c/n 656), was the most serious accident in the carrier's history for almost 40 years.

Thankfully, all 379 passengers and crew escaped with their lives, though tragically five of the six on board the Dash 8 perished in the accident. JAL is, however, acutely aware that it was incredibly fortunate on January 2, 2024. Its scars not only run deep, but have shaped the company in a profound way.

At 1812hrs local time on August 12, 1985, a Japan Airlines Boeing 747SR, JA8119 (c/n 20783), climbed into the warm evening air as JL123. A crew of 15 and 509

passengers were on board for the 55-minute flight to Osaka. Just 12 minutes into the flight, as the aircraft climbed to 24,000ft, there was an explosion and the pilots were suddenly unable to steer the aircraft. The aft pressure bulkhead had burst and the subsequent rush of escaping air tore out the auxiliary power unit (APU), while more than half the vertical stabiliser broke off and four hydraulic systems were disabled. The desperate pilots fought to keep the aircraft airborne long enough to attempt an emergency landing as the stricken jet continued to lose altitude. The aircraft lurched and pitched as it experienced Dutch rolls and phugoid oscillation; the cabin filled with a cloud of condensation. This was quickly replaced by an icy rush of air and a rapidly diminishing amount of oxygen.

▲ Japan Airlines operated ten high density Boeing 747SRs. The variant was based on the 747-100 and optimised specifically for high density short-haul operations in Japan
AirTeamImages.com/World Aviation Archive



is swaying right and left. 18.30 Falling fast, level flying. Japan Airlines 18:00 to Osaka accident. I might die... 18:45 The plane is level and stable. There's not enough oxygen. I feel sick... I don't know what happened to the plane. 18:46 I'm worried about the landing. The stewardesses are calm."

After an excruciating 32-minute rollercoaster ride, the 747 crashed into the side of Mount Osutaka, west of Tokyo, at 1856hrs, killing 520 people on board but miraculously leaving four survivors, all female and all seated in the aft fuselage. More than two dozen passengers were understood to have survived the initial impact, but as the rescue teams didn't reach the almost inaccessible accident site until the following morning, the death toll was extremely high.

In fact, the accident remains the worst of a single aircraft in the history of civil aviation. It traumatised Japan and JAL, the country's flag carrier, has struggled ever since to atone for the disaster and restore its reputation for safety. Ironically, it was a series of more recent JAL safety lapses in 2005 that ultimately led to the creation of a highly unusual memorial and museum for the 1985 crash.

Japan's Civil Aviation Bureau scolded JAL for its safety lapses in 2005 and proposed a panel of



Last messages

During this time, most of the passengers on board were conscious and struggling to comprehend what was going on. Hirotugu Kawaguchi, a 52-year-old shipping company executive in seat 22H, took out his diary and scrawled a message to his family across seven pages: "I'm very sad, but I'm sure I won't make it... I don't want to take any more planes. Please God, help me. To think that our dinner last night was the last time."

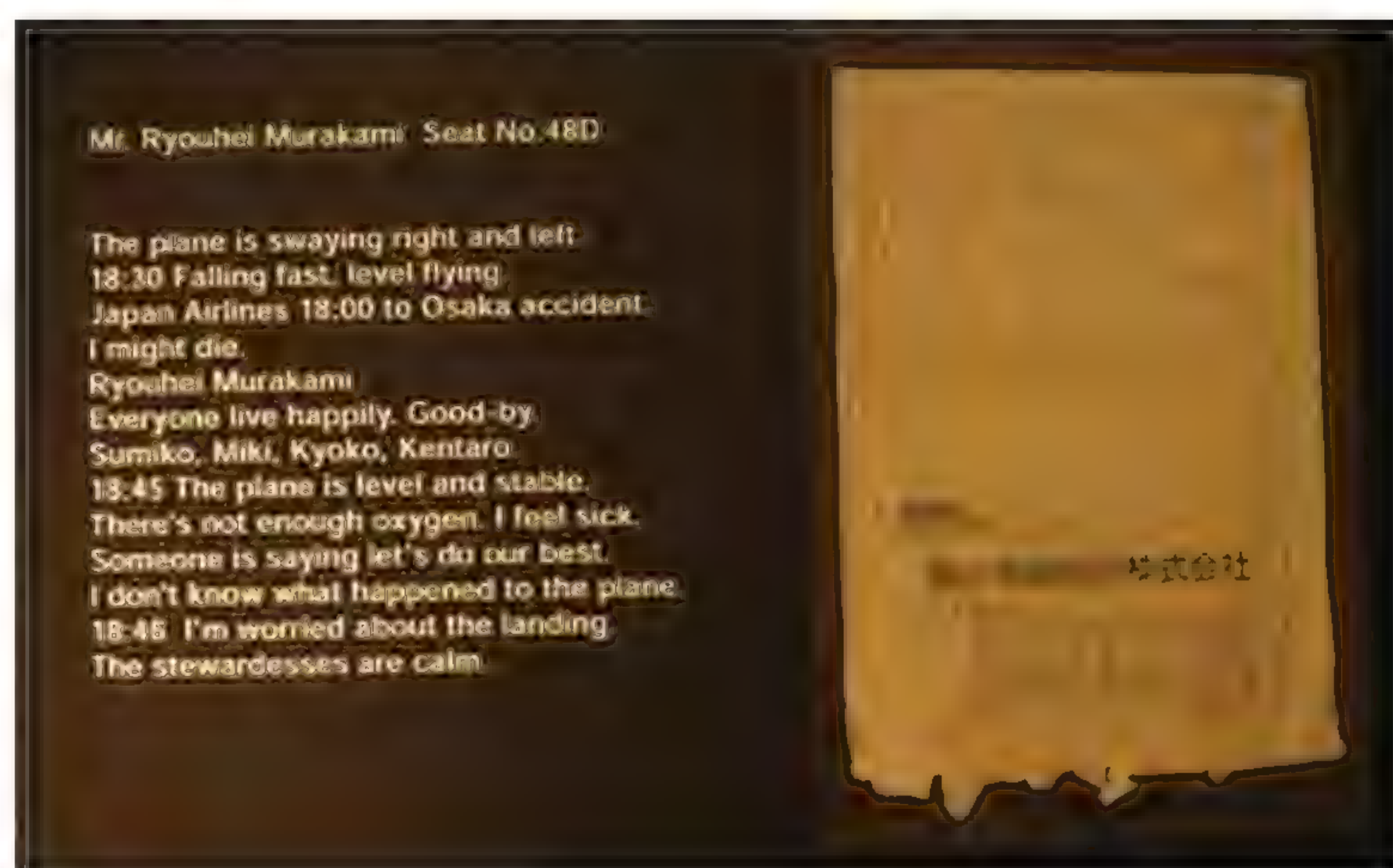
Others found anything to hand that they could write on and scribbled down their last thoughts. Mariko Shirai in seat 29B wrote in hastily formed big letters: "I'm scared. I'm scared. I'm scared, Help. I feel sick. I don't want to die. Mariko."

Keiichi Matsumoto, sat two rows in front of Kawaguchi, wrote to his wife and son, his words racing across the pages of a now blood-smeared notebook: "The masks came down suddenly with a bang. Bang, we're starting to fall. Be brave and live."

Another passenger, Ryouhei Murakami in seat 48D grabbed an empty plastic bag and wrote: "The plane

▲ The black boxes recovered from Boeing 747SR, JA8119 (c/n 20783), following the August 12, 1985 crash All images Andreas Spaeth unless stated

▼ Exhibits at the JAL Safety Promotion Center include the final messages of terrified passengers – a sobering insight into the final minutes of JL123





▲ The centrepiece of the JAL Safety Promotion Center is the rear bulkhead of Boeing 747SR, JA8119. Its failure was identified as the cause of the JL123 crash

▼ Personal items belonging to passengers on JL123 are interspersed with pieces of wreckage to create a powerful juxtaposition

outside experts to advise the company on safety. One recommendation of the panel was to create a 'safety documentation center'.

Confronting a difficult past

At the same time, the then CEO of JAL had separately conceived of a museum-like exhibition of flight JL123 debris to promote safety. So, on April 24, 2006, the JAL Safety Promotion Center opened close to Tokyo's Haneda airport. JAL spent US\$1.5m to create the 6,700sq ft display, which details the history of the crash in a very modern museum-style way. Recently, the display moved to another building within the JAL Maintenance Center at Haneda Airport, only steps away from the Monorail connecting the airport to the city. The floorspace is slightly larger and the general

public still can get access through guided tours after prior application – up to two months before an intended visit.

There are many original items and pieces of the wreckage being shown with the fractured rear pressure bulkhead being the centrepiece of the exhibit, as well as parts of the vertical stabilizer, which had to be retrieved from the bottom of the sea after falling off early on. A faulty repair of the bulkhead by Boeing seven years before the crash was identified as the probable cause of the catastrophe.

The most striking items on display however, which really bring across the horror of the moment for every visitor, are reproduction of some of the passenger's last written words, as quoted earlier.

Normally airlines do everything to dissipate any public memory about a major crash as soon as possible in an attempt to restore confidence and get business going again. Usually bookings slow at an airline after a major accident, normally recovering some weeks later, when the accident is no longer in the news. JAL experienced this in 2005 after a series of incidents, when passengers began to desert the flag carrier for rival All Nippon Airways and thus contributed to a loss of US\$403m that fiscal year. But to overcome disasters in way that might almost seem masochistic to Westerners is a typical Japanese way of dealing with such an event. It is customary that the CEOs of affected companies apologise personally to victim's families and step down afterwards, even if there is no personal fault involved. In a culture known for ritualising contrition, JAL executives pointed out that although Boeing took the brunt of the blame, it was JAL that failed to detect the defective repair and put people at risk. "To the passengers and society,



this is Japan Airlines' accident," said former JAL group CEO Toshiyuki Shinmachi.

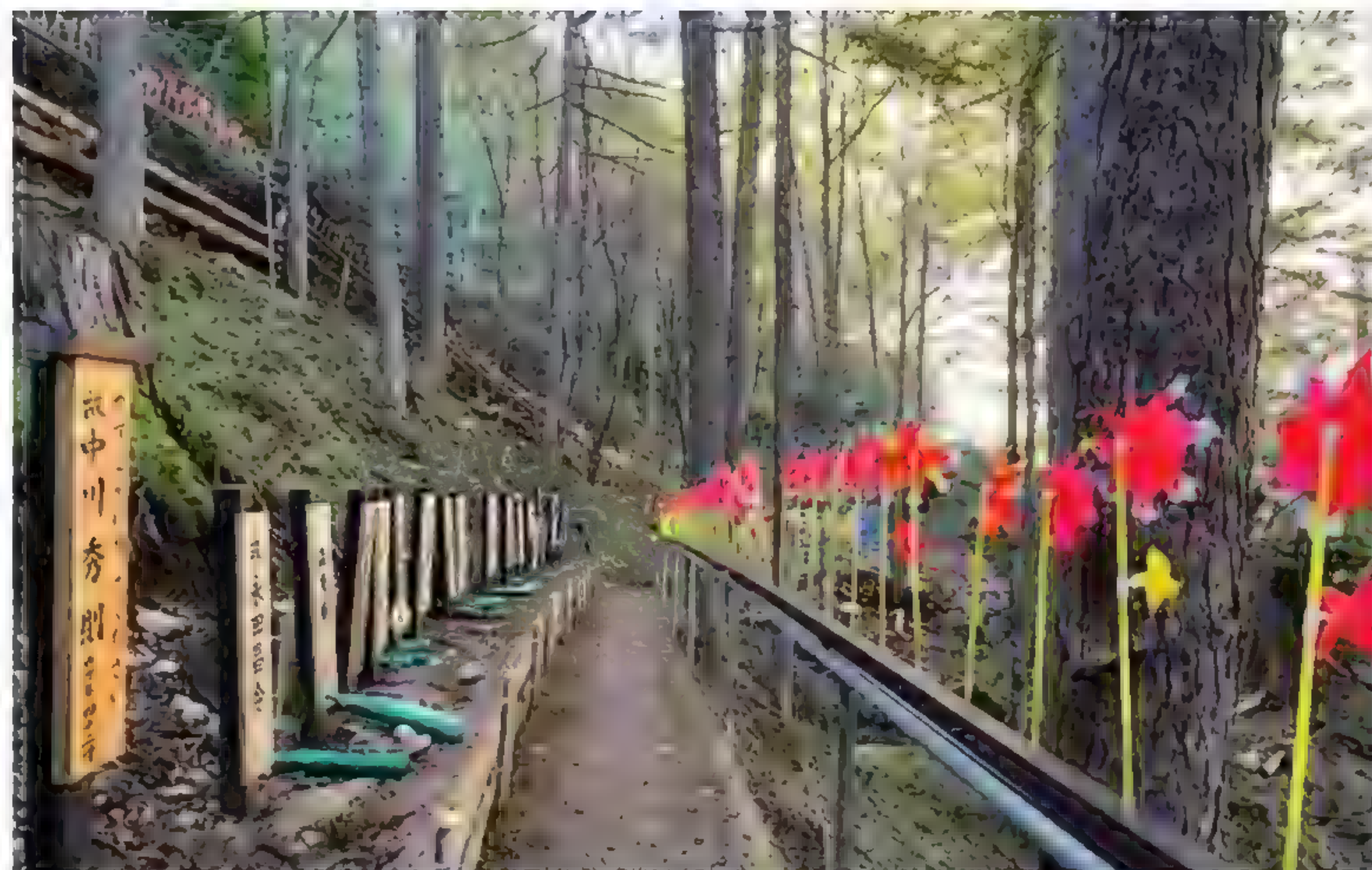
The Safety Promotion Center, publicly displaying shortcomings of the company, is therefore part of the Japanese way of dealing with fault. The purpose of it is to drive home the importance of safety to the airline group's over 36,000 employees and at the same time, demonstrate to the public that the airline is taking its commitment to safe operations seriously.

"By standing here and facing this evidence, each and every employee must regard this centre as the starting point of safety awareness," Shinmachi stated during the opening. Visits, especially for newly recruited staff members, are mandatory and many even come time and again during their worklife at JAL.

"We have three missions", Masato Mukoyama, the centre's director, explained to *Aviation News* during a recent visit. "We want to keep the mourning for the victims alive, we want to promote safety and we want to hand down the lessons we've learned from the accident to the next generation, and we can't apologise enough for the accident."

Sobering staff tours

Organised staff tours to visit the actual crash site in the mountains north of Tokyo, led by Mukoyama, are part of this process. With JAL's financial support, an access road to the remote crash site had been built and a vast



network of often steep walking paths was created and is maintained, covering several adjacent mountains and valleys.

Aviation News visited this highly unusual and sobering place, which also offers an eerily beautiful nature and hiking experience in good weather. Families of victims would visit locations where their relative's remains were found to leave memorials. In one case, on their stone memorial, the family of

▲ There are individual memorials to each passenger as well as larger displays commemorating the loss of the aircraft

▼ Japan Airlines conducts staff visits not just for its Safety Promotion Center, but also to the JL213 crash site three hours north of Tokyo



teenage twins who died in the crash go as far as to accuse the Japanese Self Defence Force of shooting down the aircraft.

Some families still dispute official findings about the cause of the crash, with some reason, as for example not even all crucial parts of the tail have ever been recovered from the sea. These bereaved dismiss the JAL display as 'propaganda' and even Masato Mukoyama acknowledges that there are dissenting opinions, both on JAL's effort and the accident investigation itself, "...but we have to stick to the results that came out of the government agency's investigations," he said.

Most members of the victims' families, however, seem to be content with the concept of displaying some very personal items and thoughts of their loved ones prior to their untimely death. "I believe that most of the bereaved families are happy about it," says Kuniko Miyajima who lost her then nine-year-old son in the crash and heads an association of the victims' relatives. "After the crash I have been wishing for 21 years to make some use of those 520 lives, keeping the debris and making it public since 2006 is the first step towards preserving what happened forever."

Still, establishing such a facility is highly unusual. "I can't see many other airlines, if any, willing to take such a bold and imaginative step as JAL has done," says John Bailey, who works as a crisis communications consultant for airlines. "I don't think it would have occurred to me to advise them to do that."

► Seats removed from a wreckage provide a chilling indication of the forces involved in a crash

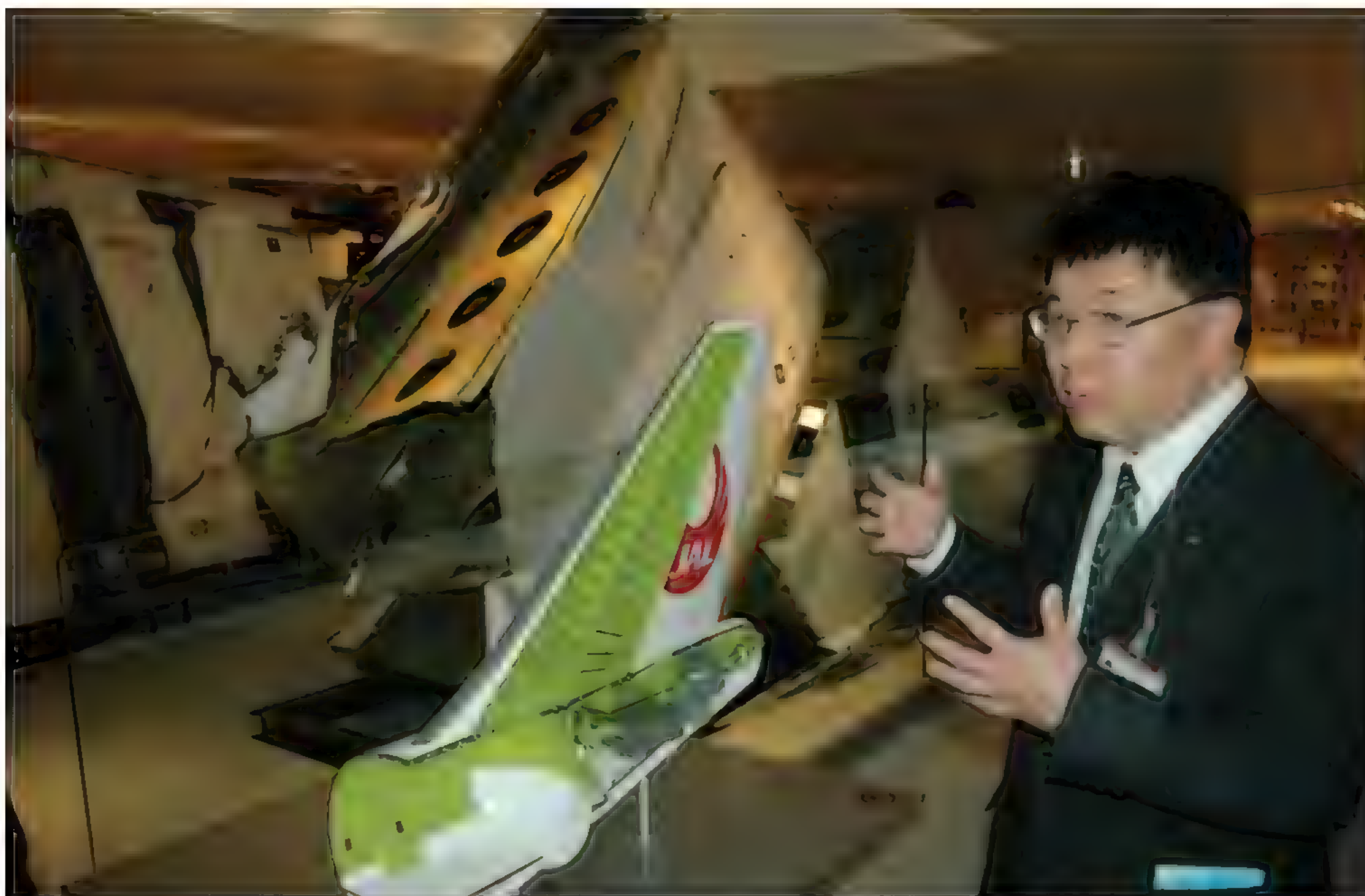
▼ The ANA Safety Education Center includes the remains of a Boeing 727-100, JA8302 (c/n 18822), which crashed into Tokyo Bay in February 1966

Rival follows suit

It might then appear even more surprising that ANA – JAL's biggest domestic and international rival – has followed JAL's example. It opened the ANA Safety Education Center (ASEC) in March 2007 on the premises of its training and education centre in Tokyo's Shimomaruku district, also not far from Haneda airport. This is especially surprising because ANA hasn't suffered such a high profile accident as JL123 and their last major jet accident was in 1971, preceded by two crashes in 1966.

It seems odd by Western standards to preserve wreckage of an air accident for so many years, but ANA had kept the remains of a Boeing 727-100, JA8302 (c/n 18822), at a hangar in Haneda for decades. On February 4, 1966, the aircraft crashed in Tokyo Bay while attempting to land at Haneda airport. Inbound from Sapporo, flight NH60 impacted the water shortly after having been cleared for final approach. All 133 people on board died, making it





◀ More than 80 people visit the JAL Safety Promotion Center each day despite a lack of publicity

“It was a series of more recent JAL safety lapses in 2005 that ultimately led to the creation of a highly unusual memorial and museum for the 1985 crash”

the worst aircraft accident ever at the time. The exact cause has never been found, but it is assumed that the pilots erred about altitude and attitude of their aircraft, which had happened before on visual approaches at night-time. A crumpled fragment of the 727's tail mounted no.2 engine air inlet greets visitors to ASEC today. The exhibit, arranged in a very similar way as at JAL's facility, centres around this and two other ANA accidents – a 1971 mid-air collision between an ANA 727 and a Japan Air Self Defence Force F-86F Sabre, and a YS-11 which lost altitude and crashed in the Seto Inland Sea after a go-around at Matsuyama on November 13, 1966.

While the ASEC is a bit more of a theoretical affair, it still makes its point. A typical visit for staff is organised in an educational manner with a couple of very well-made films and an interactive classroom session teaching visitors to be aware and alert to avoid human errors which are the initial cause of 60% of all safety occurrences. “By sharing the individual experience of errors with others we can avoid the reoccurrence of the same error,” said former ANA CEO Mineo Yamamoto at the opening of ASEC. “The aim here was to create a facility for ourselves to learn the lessons from past accidents.”

Maybe more carriers and organisations in aviation worldwide should try to bring this message home the Japanese way.

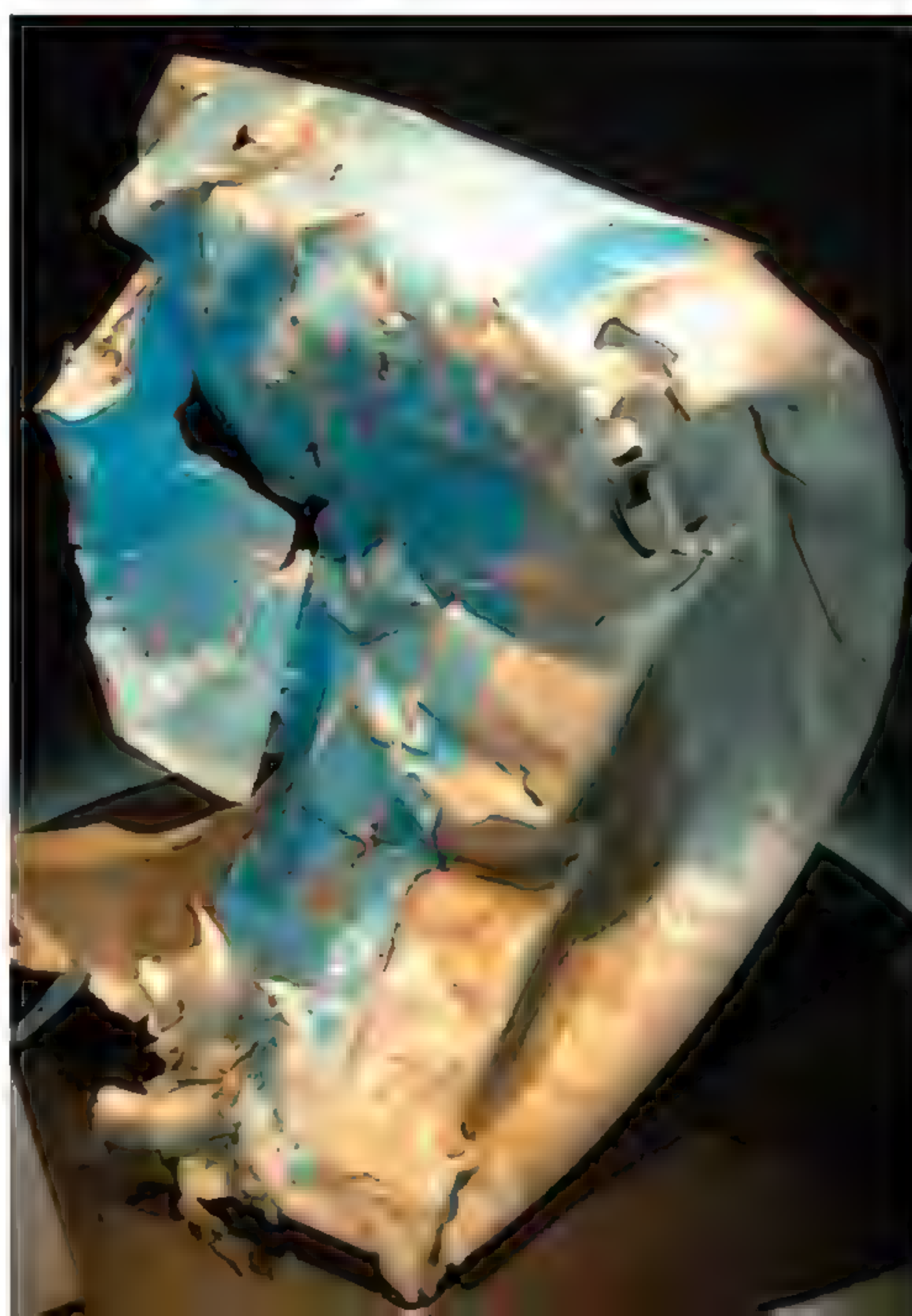
“It's an important, very visual element for people to see what the consequences are if things aren't done properly,” said Christopher Hood, an academic in Japanese Studies at Cardiff University, who has extensively studied the aftermath of JAL123 in Japan. “I think such safety centres provide a very good part of the safety net to ensure staff awareness stays high. Such places are important and much more tangible focal points, compared to normal training centres.”

It seems to work well – neither ANA nor JAL have encountered the loss of a single life in aircraft

accidents since their last incidents were memorialised in their respective safety centres. More significantly, Airbus opened its very own Safety Promotion Centre (SPC) at its Toulouse/Blagnac manufacturing facility in February 2023. The European manufacturer acknowledges the origins of its own SPC with a sign at its entrance explaining the facility was ‘inspired by Japan Airlines’.

AN

The author wishes to thank Maggie Kuwasaki of JAL Public Relations in Tokyo for enabling his most recent visit to the JAL Safety Promotion Center. Please note JAL no longer allows photography in their safety exhibit. Most photos shown here were taken by the author during an earlier visit, when it was still permissible.



◀ All Nippon Airways (ANA) – JAL's biggest rival – was prompted to create its own facility to promote and demonstrate its own commitment

AIR BASE MOVEMENTS

This Boeing KC-46A Pegasus, 16-46013 (c/n 34109), from the 133rd Air Refuelling Squadron (ARS), New Hampshire Air National Guard was one of four KC-46As which were present at RAF Mildenhall in early February. The aircraft, along with 19-46062 from the 77th ARS and 19-46063 and 20-56074 from the 514th Air Mobility Wing supported strikes along the Syrian/Iraqi border between February 2-3 as DEED51-54 Peter R Foster



A selection of the most interesting aircraft to have recently visited air bases in the UK

RAF Brize Norton

8/2 330002 CC-330 437 Sqn, RCAF dep 10th also 21st n/s
12/2 ZM500 Jupiter HT1 202 Sqn, RAF also 23rd; 1504 C-130E Polish AF n/s
13/2 ZZ408 Wildcat AH1 659 Sqn, AAC
14/2 ZZ520 Wildcat AH1 659 Sqn, AAC dep 20th
16/2 ZZ407 Wildcat AH1 652 Sqn, AAC; 54+21 A400MLTG62, German AF
19/2 0053/F-RBAK A400M ET01.061, French AF
22/2 506 C-130J 16 Sqn, Royal Air Force of Oman
26/2 1104 An-30 Romanian AF

RAF Cranwell

12/2 E107/8-UD Alpha Jet E French AF
16/2 ZH840 Merlin HM2 814 NAS, RN

RAF Fairford

7/2 68-10336 U-2S 9th RW, USAF n/s
9/2 07-7172 C-17A USAF
15/2 08-8194 C-17A USAF

RAF Honington

13/2 ZD575 & ZH893 Chinook HC6As 28 Sqn, RAF
15/2 ZM714 AH-64E 673 Sqn, AAC

RAF Lakenheath

9/2 F-011 & F-017 F-35As 322 Sqn, Royal Netherlands AF
21/2 00-0180 C-17A 758th AS, AFRC n/s
23/2 84-0096 C-21A 76th AS, 86th AW, USAF

RAF Leeming

16/2 ZH840 Merlin HM2 814 NAS, RN also 28th
19/2 ZH854 Merlin HM2 814 NAS, RN also 20th; ZH846 Merlin HM2 820 NAS, RN; ZZ399 Wildcat AH1 847 NAS, RN also 22nd & 26th
20/2 ZH843 Merlin HM2 820 NAS, RN also 21st
21/2 ZZ524 Wildcat AH1 847 NAS, RN
28/2 ZK361 & ZK376 Typhoon FGR4s 1 Sqn, RAF

RAF Lossiemouth

2/2 20-5573/LN & 20-5590/LN 495th FS, 48th FW, USAF both o/s
9/2 13-5778 MC-130J 67th SOS, 352nd SOW, USAF o/s
10/2 169344/RC & 169346/RC P-8As VP-46, USN both dep 20th
13/2 LX-N90453 E-3A NAEWF o/s
16/2 A30-002 E-7A 2 Sqn, RAAF n/s
21/2 G-275 C-130H 336 Sqn, Royal Netherlands AF
22/2 168856/RC P-8As VP-46, USN
23/2 25 Atlantique NG French Navy
24/2 168852/PD P-8A VP-9, USN

DSME Lyneham

XZ332 Gazelle AH1 & XZ666 Lynx AH7 dep during February on delivery to the Ulster Aviation Society

RAF Mildenhall

1/2 86-0021 C-5M 436th/512nd AW, USAF
4/2 85-0004 C-5M 436th/512nd AW, USAF
7/2 900528 C-26D AOD Naples; 20-5933 MC-130J 9th SOS, 27th SOW, USAF dep 21st; LX-N90453 E-3A NAEWF o/s

MAR

UK air base movements from MAR: www.militaryaviationreview.com 23 Waggoners Way, Morton, Bourne, Lincolnshire PE10 0XR



- 21/2 59-1476 KC-136R 92nd ARW, USAF dep 24th
- 22/2 04-4137 C-17A 305th/514th AMW, USAF n/s
- 23/2 87-0043 C-5M 337th AS, AFRC; 84-0085 C-21A 76th AS, 86th AW, USAF also 29th
- 24/2 84-0191 & 86-0027 KC-10As 60th/349th AMW, USAF both dep 26th
- 25/2 86-0031 KC-10A 60th/349th AMW, USAF dep 28th
- 29/2 84-00156 C-12U E/1-214th Avn, US Army; 57-1508 KC-135R 6th ARW, USAF

RAF Northolt

- 1/2 ZM404 Atlas C1 24/70 Sqns, RAF
- 7/2 ZM505 Jupiter HT11 FTS, RAF
- 26/2 T.18-5/45-05 Falcon 900B Esc 451, Spanish AF n/s
- 27/2 102002 Tp102 Swedish AF; ZZ403 Wildcat AH11 Regt, AAC
- 28/2 ZK561 Chinook HC6 RAF

RAF Shawbury

- 13/2 ZM709 AH-64E AAC
- 16/2 ZZ408 Wildcat AH11 Regt, AAC
- 20/2 ZH897 Chinook HC5 27 Sqn, RAF
- 21/2 279 AW139 301 Sqn, Irish Air Corps dep 23rd
- 22/2 ZZ516 Wildcat HMA2 825 NAS, RN; ZM728 AH-64E 673 Sqn, AAC

RAF Waddington

- 1/2 65 Xingu 28F, French Navy
- 12/2 089/YJ Xingu EAT00.319, French AF
- 20/2 ZZ524 Wildcat AH1 847 NAS, RN; T-784 Citation 560XL LTDB, Swiss AF
- 22/2 XX321 Hawk T1A arrived from Valley in full Red Arrows colours after conversion to display standard
- 23/2 81 Xingu 28F, French Navy also 26th

- 8/2 07-7169 C-17A 436th/512nd AW, USAF
- 9/2 62-3550 KC-135R 197th ARS, Az ANG dep 12th
- 11/2 G-275 C-130H 336 Sqn, Royal Netherlands AF
- 12/2 90-9108 C-130H 757th AS, AFRC also 14th
- 13/2 86-0017 C-5M 436th/512nd AW, USAF dep 17th
- 14/2 18-5886 AC-130J 4th SOS, 1st SOW, USAF dep 16th
- 16/2 58-0094 KC-136T 6th ARW, USAF dep 24th; 61-0295 KC-136R 6th ARW, USAF dep 18th

This 9th Special Operations Squadron, 27th Special Operations Wing Lockheed Martin MC-130J, 20-5933 (c/n 382-5933), arrived at RAF Mildenhall from Souda Bay, Greece as DOGGY57 late on February 7. The aircraft appeared to be visiting for maintenance having suffered fuselage damage which seemed to affect pressurisation as the aircraft maintained an altitude of 10,000ft for the entire journey Peter R Foster





▲ This former US Marine Corps Lockheed EC-130Q, N130AR (c/n 382-4984), now operates for the US National Science Foundation as its National Center for Atmospheric Research. It passed through Prestwick on February 26 en route from its Rocky Mountain Metropolitan Airport, Colorado-base to Kiruna, in northern Sweden, for a six-week detachment for use in the study of marine cold air outbreaks SH

A round-up of notable aircraft visiting UK airports

Aberdeen

- 4/1** D-IETB Premier 1
- 8/1** F-HSTE ERJ135LR Millesime Aviation & D-CSMC Citation 560XLS+ Inverness diversions
- 9/1** G-CLYU E190LR Eastern Airways; N201AC Gulfstream G650ER
- 11/1** OO-ROK CitationJet 525C CJ4

Birmingham

- 1/2** 9H-WDV A321-271NX Wizz Air Malta f/v; G-UZLR A320-250N easyJet f/v; TC-DCG A320-216 Pegasus Airlines f/v; D-BABE Legacy 500; N656FG Falcon 8X; OH-BSL PC-12NG; SX-FDK Citation 650 III
- 2/2** C-GYJW 787-9 Air Canada to STS Aviation, f/v; VT-SCB A319-111 Air India ferry to USA, f/v; D-AVIB Legacy 600; D-CMMP Phenom 300; HB-JOR Global 5000
- 3/2** TC-RBA A321-251NX Pegasus Airlines f/v; TF-AKD 747-409F Air Atlanta Icelandic; C-GSAT Challenger 604
- 4/2** 9H-WDJ A321-271NX Wizz Air Malta f/v; D-AERO Legacy 650
- 6/2** TC-RDR A321-251NX Pegasus Airlines f/v; TC-SMF 737MAX-8 SunExpress; D-CPAV Phenom 300; D-CTLM PC-24
- 7/2** 9H-QDA 737-8AS Ryanair f/v; F-HFKF ERJ145LR Thalair; LX-RHC Challenger 605; TC-SGO Falcon 2000LX
- 8/2** TC-RDF A321-251NX Pegasus Airlines f/v; 9H-CLG Challenger 850; D-CDRF Learjet 35A
- 9/2** S5-BAP Citation 550 Bravo
- 10/2** TC-RBC A321-251NX Pegasus Airlines f/v; N888ZF Gulfstream G650ER; OK-PHA Phenom 300
- 11/2** EC-NAB 737-81Q AlbaStar Manchester diversion; OO-SNO A320-214 Brussels Airlines f/v; SP-ENR 737-8Q8 Enter Air; TC-SMA 737MAX-8 SunExpress; M-OUSY Gulfstream G280; N982RW Gulfstream G600
- 12/2** 2-JRSY Praetor 600; N115LR Gulfstream G450
- 13/2** PH-HZV 737-8K2 Transavia ops for KLM f/v; TC-RDU A321-251NX Pegasus Airlines f/v; TC-SMB 737MAX-8 SunExpress; D-CROG Phenom 300; OE-HCA Challenger 300
- 14/2** N95VB Beech C90GTx; SP-AIN Citation 560XL
- 15/2** TC-NBD A320-251N Pegasus Airlines f/v; D-BOSS Praetor 600; N489VR Gulfstream IVSP
- 17/2** G-LMTG ATR 72-600 Loganair f/v; G-SUNF A321-251NX Jet2 f/v; TC-RBY A321-251NX Pegasus Airlines f/v; F-HICU Hawker 900XP

- 18/2** 9H-QFA & SP-RNB 737-8AS Ryanair both f/v; TC-SOJ 737MAX-8 SunExpress; D-AEEC A321-251NX Eurowings f/v; 9H-ILI Challenger 850; N15GX Global XRS
- 19/2** C-GXAJ 767-323(ER)(BDSF) Cargojet f/v; D-CUNI Learjet 45
- 20/2** EI-IJB 737MAX-8200 Ryanair f/v; OY-SYC 767-3P6(ER)(BDSF) Maersk Air Cargo f/v; OH-ZRH PC-12NG
- 21/2** F-HGET PC-12NG; N318LE Gulfstream G600
- 22/2** EI-IJK 737MAX-8200 Ryanair f/v; TC-RBH A321-251NX Pegasus Airlines f/v; M-CVGL Global 5000; N188AS Falcon 7X
- 23/2** 9H-WNC A321-271NX Wizz Air Malta f/v; OO-SNP A320-214 Brussels Airlines f/v; TF-WFF 747-446(BDSF) Air Atlanta Icelandic; D-CICU Learjet 45; P4-USA Learjet 60XR
- 24/2** TC-RDN A321-251NX Pegasus Airlines f/v
- 25/2** G-JZDA 737-82R Jet2 f/v; TC-SMI 737MAX-8 SunExpress; 2-HWDN Challenger 604; OK-PHE Phenom 300
- 26/2** 9H-WAZ A321-271NX Wizz Air Malta f/v; EI-FFA 737-8K5 Fly4 Airlines f/v; SP-RNE 737-8AS Ryanair f/v; I-TOPF Beech 400XP; LX-FLG PC-12NGX; N91HK Challenger 300
- 27/2** G-TUKV 737-8K5 TUI Airways f/v; SP-ENG 737-8CX Enter Air; TC-JIO A330-223 Turkish Airlines; TC-RDG A321-251NX Pegasus Airlines f/v; TC-SOI 737MAX-8 SunExpress, UR-CNN An-12B Cavok Air; 9H-VJO Global 6000 VistaJet; F-HMXL Citation 550 II
- 28/2** G-UZLS A320-250N easyJet f/v; G-VPRD A350-1041 Virgin Atlantic; 9H-FAY Lineage 1000 Air X f/v; 9H-PMN CitationJet 525A CJ2; D-CAKE Phenom 300; G-CLYU E190LR Eastern Airways f/v
- 29/2** D-AEEB A321-251NX Eurowings; TC-NBT A320-251N Pegasus Airlines f/v; 9A-JIP CitationJet 525A CJ2; OE-HWM Gulfstream G280

Blackpool

- 1/12** D-CRTP Citation 560XLS+
- 8/12** PH-DWS ERJ135LR JetNetherlands
- 10/12** 9H-XOC Citation 560XLS VistaJet; YU-PZM Citation 560XLS+
- 12/12** F-HECD Falcon 7X
- 14/12** OO-MMT Citation 560XLS; OY-HOF AW169 Uni-Fly
- 15/12** N3HK Cessna 340; OK-PHM Phenom 300
- 18/12** HB-KKM Cirrus SR22T
- 22/12** F-HGSA Legacy 600 also 26th
- 23/12** SP-TAT Beech 400A

27/12 OE-HPC Legacy 500

28/12 D-CSOS Learjet 45; D-CUBA CitationJet 525B CJ3; S5-CES CitationJet 525B CJ3

Bristol

1/1 OO-SBO Falcon 8X; SX-DNB A320-232 Aegean Airlines

2/1 LX-PCK PC-24; OK-CAA Citation 560XLS

3/1 D-CLIF Phenom 300

4/1 272 EC135T2 GASU, Irish Air Corps; 275 AW139 301 Sqn, Irish Air Corps

5/1 CS-DOU Global 6500

6/1 HB-JBD A220-100 Swiss International

8/1 D-CHRG Citation 680A Latitude

11/1 OE-GIP Citation 560XLS+

14/1 9H-VVS 737MAX-8200 Ryanair

16/1 D-CPAV Phenom 300

19/1 I-TOPX Beech 400XP

21/1 HB-JXL A320-214(SL) easyJet Switzerland

24/1 9A-JSD CitationJet 525A CJ2; 9H-XOA Citation 560XLS VistaJet

25/1 D-CJPG Learjet 35A

26/1 2-CLRK Eclipse EA500; D-ILAP Phenom 100

28/1 SP-RNC 737-8AS Ryanair; 29/1 D-CDIM Learjet 35A; OO-PCC PC-12NGX

31/1 CS-GLA Global 6000 NetJets Europe; 9H-VJR Global 6000 VistaJet

12/2 OK-PHO Phenom 300

13/2 N486MC 747-45EF Atlas Air; 9H-LAW 737-4K5 Air Horizont for painting; D-CGER CitationJet 525B CJ3

14/2 N485MC 747-45EF Atlas Air; D-CTOR Phenom 300; 4K-BCH 747-467F Silkway West Airlines

15/2 N446MC 747-4B5F(ER) & N408MC 747-47UF Atlas Air

16/2 N416MC 747-47UF & N486MC 747-45EF Atlas Air; 9H-VCA Challenger 350 VistaJet

17/2 N267DW Challenger 605

18/2 HA-JEX Citation 650 VI

19/2 OK-PHE Phenom 300

20/2 G-DRTX 737-8AL Jet 2 for repainting from basic Anadolujet scheme; D-CJMK Citation 560XLS+; HB-JSF Challenger 650

21/2 LX-RHC Challenger 605

22/2 SX-DVJ A320-232 Aegean Airlines for painting; EI-FFA 737-8K5 Fly4 Airlines; D-CBBB Citation 560XLS+; SP-UMA Citation 560XLS; D-BALL Praetor 600

24/2 9H-VIN Global 7500 VistaJet

25/2 LY-BGH Hawker 750; D-BEER Legacy 500

26/2 A7-BFC 777-FDZ Qatar Cargo; D-IENE CitationJet 525A CJ2+; PH-PKX Citation 750 X

27/2 D-CRTP Citation 560XLS+

28/2 OE-GMJ Citation 560XLS+; D-CJMS PC-24

29/2 D-CAAA Citation 560XLS+; G-JZDD G-JZDD 737-8JP Jet 2 for painting, ex-Flyr; HB-JLO Gulfstream G650ER

Glasgow Prestwick

Chevron summary LN-LNH 787-8 re-registered M-ABSD remains in hangar; OO-JLO 737-8K5 partially dismantled; N371BC 737-8EF remains stored, re-registered LY-CER for KlasJet

ATF Prestwick 130603, 130604, 130614 CC130Js RCAF remain based

2/1 T7-DAT Avanti

3/1 G-CLXT ATR 72-212(F) West Atlantic mail fight also 9th; G-HLYA A321-211(SL) Jet 2 training; HB-FQK PC-12NGX c/n 2330 on delivery; SP-MRF 767-281(BDSF) SkyTaxi

4/1 130605 CC-130J RCAF to replace 130614 with ATF Prestwick; 90-0535, 97-0048, 00-0178 & 01-0194 C-17As 89th AS, AFRC; 2-KSFR Global 6000; 9H-VUX 737MAX-8200 Ryanair; 1224 C-17A UAE AF n/s also 8th n/s & 15th-17th

5/1 84-00165 C-12U & 99-00102 UC-35A E/1-214th Avn, US Army; 12-5759 MC-130J 67th SOS, 352nd SOW, USAF training

6/1 1300 A330-MRTT UAE AF also 8th n/s; 58-0015 KC-135R 465th ARS, AFRC, on TDY until 11th; 177703 CC-177 429 Sqn, RCAF dep 8th also 25th-29th

7/1 04-4128 C-17A 305th/514th AMW, USAF dep 9th

KEY

f/v first visit

n/s night stop

o/s overshoot

East Midlands

1/2 4K-SW888 747-4R7F Silkway West Airlines; OO-MST Citation 510 Mustang; D-CEFO Citation 560XLS+; D-CPAV Phenom 300; D-IBEA CitationJet 525A CJ2+; HA-LUA Hawker 400XP

2/2 D-CYES Learjet 35A; OE-GBH Phenom 300

3/2 LX-AND PC-24

4/2 I-JENC E190ER Air Dolomiti for repainting from Lufthansa Regional livery; D-CLIF & D-CROG Phenom 300s; 9H-VCN Challenger 350 VistaJet

5/2 D-AALV 777-F Aerologic f/v; N506RP Gulfstream G280; N310TK Challenger 300

6/2 9H-VCO Challenger 350 VistaJet

7/2 D-IKCG CitationJet 525A CJ2

8/2 G-HODL 737-82R Ascend Airways based for training flights; G-SUNE A321-251NX Jet2 for painting; N979JW Falcon 7X; D-CFFF Citation 560XLS+

9/2 D-ANXA Legacy 650; 9H-VJS Global 6000 VistaJet

10/2 HA-JEO Citation 650 III; D-IFRT CitationJet 525A CJ2+

11/2 G-DRTV 737-8AL Jet2 for repainting from basic Anadolujet scheme; OK-PPP Nextant 400XT

▼ Solaris Aviation Gulfstream 650ER, N888ZF (c/n 6382), passed through Birmingham Airport on February 11. When delivered, the 2019-built jet replaced a Gulfstream IVSP which had held the same registration AirTeamImages.com/Dave Sturges



8/1 G-NPTA 737-86N(BCF) West Atlantic UK training; KAF342 C-17A Kuwait AF n/s also 12th-14th; N1ET TBM 960 c/n 1516 on delivery

9/1 G-GDFD 737-8K5 Jet 2 training until 11th; HB-FQM PC-12NGX c/n 2332 on delivery; 16-46013 KC-46A 133rd ARS, NH ANG also 10th; G-DLAD Cessna 208A

10/1 1225 C-17A UAE AF n/s, also 12th-14th

13/1 G-NJAE Falcon 2000EX NetJets UK; N783SP 757-225(CF) Samaritan's Purse n/s

14/1 2-EMBR Phenom 300 also 16th; UR-CEZ An-12B Cavok out 20th; EI-IJE 737, EI-IFW, EI-IFX, EI-HGM, 7 EI-IHV 737MAX-8200s Ryanair rotating through hangar

15/1 G-NPTX 737-4C9(SF) West Atlantic UK training; 1224 C-17A UAE AF dep 17th

16/1 PH-NXO E195E2 KLM Cityhopper Edinburgh tech diversion, dep 23rd; N960T TBM 960 c/n 1520 on delivery; EI-IHJ & EI-HAT 737MAX-8200s Ryanair to hangar

17/1 UR-CQV An-26B Vulkan Air; N450EJ Gulfstream IV(SP); N15RB Challenger 300; 06-6157 C-17A 60th/349th AMW, USAF n/s; 83-1285 C-5M 436th/512nd AW, USAF dep 19th; PH-EXP E175STD KLM Cityhopper training; 07-7169 C-17A 436th/512nd AW, USAF n/s; 237/F-RAFD Falcon 2000LX ET60, French AF; 84-0083 C-21A 76th AS, 89th AW, USAF; 94-0069 C-17A 167th AS, WV ANG; G-RUKA & G-RUKD 737-8AS Ryanair UK & EI-IHN & EI-IHP 737MAX8200s Ryanair to hangar

18/1 10-0214 C-17A 437th/315th AW, USAF; 164996/RU C-130T VR-55, USN; A7-CGM Gulfstream G650ER; LX-JFE PC-12NG; EI-HGL, EI-IHW, EI-IFZ 737-MAX8200s Ryanair to hangar

19/1 06-6166 C-17A 436th/512nd AW, USAF; 144617 CC-144C 412 Sqn, RCAF; HB-FWU PC-12NGX; M-ARWA Cessna 425; EI-HES, EI-IGY 737MAX-8200s RYR to hangar

20/1 EI-HGZ, EI-IGV & EI-HGM 737MAX-8200s Ryanair to hangar

21/1 2-CLRK Eclipse EA500; N850LH TBM 850; G-EZGO A319-111 easyJet

22/1 177705 CC-177 429 Sqn, RCAF dep 24th, also 25th n/s

23/1 TF-WFF 747-446(BDSF) Fly Meta from Chicago

24/1 07-7175 C-17A 436th/512nd AW, USA n/s; 06-6154 C-17A 60th/349th AMW, USAF n/s also 25th n/s; N962LD TBM 960 c/n 1521 on delivery

25/1 165316/BD C-130T VR-64, USN dep 27th; EI-HGF, EI-IJB, EI-IGG, EI-IHB & EI-IHR 737MAX-8200s Ryanair to hangar

26/1 UR-CKM An-12BP Cavok

27/1 EI-IGX, EI-HMS & 9H-VVJ 737MAX-8200s Ryanair to hangar

28/1 EI-HMY & 9H-VVH 737MAX-8200s Ryanair to hangar; OY-AWH PC-12/47E; N287K Quest Kodiak 100 from Keflavik dep 29th

29/1 EI-HMY & EI-IHX 737MAX-8200s Ryanair to hangar; 00-0174 C-17A 144th AS, Ak ANG n/s

30/1 EI-IJG & EI-IHO 737MAX-8200s Ryanair to hangar; KAF343 C-17A 41 Sqn, Kuwait AF

31/1 9H-VVL 737MAX-8200 Ryanair to hangar; HB-FQQ PC-12NGX c/n 2336 & HB-FQS PC-12NGX c/n 2338 both on delivery

1/2 UR-CKM An-12BP Cavok Air; 9H-VVL, 9H-VVR & EI-IHE 737MAX-8200 Ryanair at hangar; 02-1101 C-17A 758th AS, AFRC n/s also 9th

2/2 G-WUKC A321 Wizz UK to Chevron hangar; 177705 CC-177 429 Sqn, RCAF also 4th n/s, 14th-17th & 23rd n/s; 177702 CC-177 429 Sqn, RCAF also 4th n/s & 10th-13th

3/2 96-00107 UC-35A 2-228th Avn, US Army out 4th; 58-0094 & 58-0103 KC-135Ts 6th ARW, USAF dep 5th; 08-8194 C-17A 62nd/446th AW, USAF n/s

4/2 144618 CC-144C 412 Sqn, RCAF n/s

5/2 G-HLYA A321-211(SL) Jet2 training; 1226 C-17A UAE AF n/s also 10th-12th

6/2 N537CA B747-446F National Airlines also 17th; G-GDFR 737-8Z9 Jet2 training; G-HLYB A321 Jet2 training also 26th; HB-FQW PC-12NGX c/n 2342 on delivery; ZK012/C, ZK017/H, ZK021/L Hawk T2s 4 Sqn, RAF all n/s; ZK025/FA, ZK027/FC, ZK035/FK Hawk T2s 25 Sqn, RAF all n/s; N77VA HondaJet; G-RUKI 737-8AS Ryanair UK to hangar, dep 11th

7/2 177703 CC-177 429 Sqn, RCAF n/s also 28th n/s; G-SUND A321-251NX Jet2 training

8/2 07-7175 C-17A 438th/512nd AW, USAF dep 9th 05-5152/HH C-17A 535th AS, 15th WG, USAF; D-AGMP E190AR German Airways dep 11th; 2-CLRK Eclipse EA500; D-ANDI A320-232 LEAV Aviation dep 11th

10/2 N261MJ Cirrus SR22T; OY-VPA Vulcanair P68 Observer 2 BioFlight; D-ANNE A320 LEAV Aviation n/s; G-275 C-130H 336 Sqn, Royal Netherlands AF n/s; 1226 C-17A UAE AF dep 12th

14/2 G-TAWZ 737-86N, G-TUKR 737-8K5 & G-TUMW 737MAX-8 TUI Airways all training

16/2 06-6166 C-17A 436th/512nd AW, USAF; 18-1947 C-37B 99th AS, 89th AW, USAF

18/2 EI-GRN DA42NG

19/2 07-7169 C-17A 436th/512nd AW, USAF n/s also 21st n/s; KAF343 C-17A 41 Sqn, Kuwait AF n/s also 22nd-24th

20/2 177701 CC-177 429 Sqn, RCAF dep 22nd; SP-MRE 767-281(BDSF) SkyTaxi n/s

22/2 130615 CC-130J 436 Sqn, RCAF n/s; KAF343 C-17A Kuwait AF dep 24th

23/2 166693 C-40A VR-51, USN; 92-03328 & 94-00317 C-12Vs 2-228th Avn, US Army; SP-RUM B737-735 Ryanair

24/2 N130AR EC-130Q National Science Foundation dep to Sweden 26th

25/2 165832 C-40A VR-58, US Navy also 26th

26/2 18-46047 KC-46A 133rd ARS, NH ANG dep 2/3; 130612 CC-130J 436 Sqn, RCAF

27/2 GHLYF A321-211(SL) A321 Jet2 training; 97-0042 C-17A 155th AS, Tn ANG, 29th

▼ This Air Canada Boeing 787-9 Dreamliner, C-GYJW (c/n 66992), was delivered from the type's North Charleston, South Carolina production facility to Birmingham Airport for cabin outfitting with STS Aviation on February 2. AirTeamImages.com/Dave Sturges





28/2 HB-FRD PC-12NGX c/n 2349 on delivery; 144619 CC-144D 412 Sqn, RCAF n/s
29/2 07-7171 C-17A 305th/514th AMW, USAF; 06-6159 C-17A 60th/349th AMW, USAF n/s; 14+06 & 14+07 Global 6000s FBS, German AF training

Guernsey

2/2 N575BW Cirrus SF50
3/2 D-CHMS PC-24
4/2 F-HUPE PA-32RT-300
5/2 9H-WIT PC-12NG
6/2 SP-EAK Beech 400XP
9/2 YU-SAI CitationJet 525 CJ1 also 12th
10/2 M-MSVI CitationJet 525B CJ3 also 18th
11/2 D-CPTN PC-24
13/2 D-ICAO CitationJet 525 CJ1+; T7-CBW Phenom 100
15/2 N208AD Cessna 208B; N542AP Gulfstream G500
18/2 N62G DA62 also 24th
22/2 9H-EHB PC-12/47E; LX-DAC PC-24 also 23rd
23/2 F-HJVL Cirrus SR22T also 25th
27/2 M-LWSG Global 6000
28/2 SP-ATT Beech 400XP; N989BJ Avanti o/s
29/2 F-HBAI Avanti; LY-FJI A320-232 Heston Airlines ops for Aurigny Air Services

London Heathrow

25/2 EI-ICS S-92A Irish Coast Guard; G-DHLS 767-316(ER)(BCF) DHL Air
27/2 9H-VCU Challenger 350 VistaJet
29/2 VT-AEN 777-3FX(ER) Air India
2/3 EI-HXD A321-271NXSL ITA Airways; G-DHLW 777-F6N DHL Air; SE-RSM E195LR SAS Link
3/3 EI-HIA CRJ1000 CityJet ops for SAS
4/3 A6-BNG 787-9 Etihad Airways
8/3 C-GYJW 787-9 Air Canada; TC-LGR A350-941 Turkish Airlines
9/3 G-DHLX 777-F DHL Air
13/3 TC-LGP A350-941 Turkish Airlines; VT-AEO 777-3FXER Air India
15/3 G-VNVR A350-1041 Virgin Atlantic Airways; N2165J A321-271NX JetBlue Airways
16/3 9H-VIT Global 7500 VistaJet; G-DHLU 777-F6N DHL Air
17/3 SX-NEJ A320-271N Aegean Airlines

18/3 CS-LTL Citation 680A Latitude NetJets Europe
19/3 EC-OFM A350-941 Iberia; N909AD Gulfstream G550; N1113R Gulfstream G650ER
20/3 N878BG 787-8 American Airlines; SE-RZZ Airbus A320-251NSL SAS
22/3 VQ-BBM 747-83QF Silk Way West Airlines
23/3 G-DHLY 777-F DHL Air

Jersey

1/2 9H-KFX Praetor 600
3/2 9H-JFX Praetor 600; D-CHMS PC-24
4/2 M-DIVE PC-24
7/2 N497XP Beech 400XP
8/2 N542AP Gulfstream G500 also 15th; T7-P1MP Gulfstream G650ER
10/2 OE-HGG Challenger 350
12/2 F-HDSR DA40D also 24th & 29th
13/2 D-IBLK CitationJet 525A CJ2+
14/2 D-COPI PC-24
15/2 8T-CC C-130K LuTSta, Austrian AF
17/2 D-CEIS Citation 680 Sovereign
18/2 N542MP HondaJet also 24th & 29th
19/2 0053/F-RBAK A400M ET00.061, French AF
20/2 LZ-PDM Premier 1
22/2 OY-DRW Falcon 7X
23/2 HA-EMA Phenom 300
25/2 9H-RFX Legacy 500
28/2 F-HBAI Avanti; 84-00156 C-12U3 1-214th Avn, US Army
29/2 A7-CGE Gulfstream G650ER Qatar Executive; F-HGJF PC-12NGX; LX-EVM Falcon 2000LX; OE-GDS Citation 560XLS+

Leeds Bradford

2/1 D-CHRF CitationJet 525B CJ3
4/1 9H-AFX Legacy 500
5/1 9H-VJD Global 6000 VistaJet; D-CMHS Citation 560XLS+
7/1 D-CSMC Citation 560XLS+
10/1 D-CIFM Citation 680 Sovereign+; LX-RHC Challenger 605; CN-TMB Hawker 800XP; A7-CGU Gulfstream G650ER
11/1 D-ISUN CitationJet 525A CJ2
12/1 9H-WZX A320-232(SL) Wizz Air Malta; 9H-ILI Challenger 850 VistaJet

▲ Air India Airbus A319-100, VT-SCB (c/n 2624), passed through Birmingham Airport on February 2 while being ferried from Delhi to Pinal Air Park following the end of its lease from Avolon AirTeamImages.com/Dave Sturges

KEY

f/v first visit
n/s night stop
o/s overshoot



▲ Fly4 Airlines' maiden Boeing 737-800, EI-FFA (c/n 38097), arrived at East Midlands Airport from Shannon on February 22 for a spot of maintenance. It departed to Dublin on February 26. AirTeamImages.com/DaveSturges

13/1 PH-ZDZ Beech B200
14/1 9H-EHA PC-12/47E; TC-RSG Learjet 45
15/1 D-IPVD CitationJet 525A CJ2; 9H-FLYIN Phenom 300
18/1 N425TT Cessna 425
19/1 OK-IHS PC-12/47E
21/1 YR-TRO Legacy 600
22/1 PH-BRA PC-12NG
25/1 PS-FBL Phenom 300
26/1 OH-TFC Praetor 600; N14717 Gulfstream G450; 9H-WDO A321-271NX Wizz Air Malta
27/1 D-IGVA CitationJet 525 CJ1; CS-PJB Phenom 300E VistaJet
28/1 F-HJFP PC-12NG
29/1 N886RW Gulfstream G600; D-ISIR CitationJet 525 CJ1+
30/1 F-HTSB CitationJet 525B CJ3; 9H-WAF A321-271NX Wizz Air Malta
31/1 9H-VCU Challenger 350 VistaJet; 9H-WDJ A321-271NX Wizz Air Malta

Liverpool John Lennon

1/2 F-HIBF Citation 510 Mustang; N594GJ Global 5000
4/2 VP-CMJ A319-115 Alpha Star Aviation
5/2 SP-IZU CitationJet 525 CJ1; F-GXLN A330 XLS Airbus Industrie; D-CAWN Citation 680A Latitude
6/2 N223A Gulfstream G550; CS-TSU 767-34P(ER) EuroAtlantic Airways
7/2 HA-SCY Citation 650 VI; OO-MST Citation 510 Mustang
9/2 SP-UMA Citation 560XLS; TF-SIF Dash 8-314MPA Icelandic Coast Guard
10/2 HA-JEP Citation 650 III; D-CUGF CitationJet 525B CJ3+
11/2 PH-DWA ERJ145LR Air Charters Europe; 9H-MAS Global 5000; TF-ICM 737MAX-8 Icelandair Manchester diversion
13/2 HA-SCU Citation 650 VI; N889LV Gulfstream G650ER
14/2 OE-GLY Learjet 75
15/2 N100VA Eclipse EA500; OE-GWV Citation 560XLS
16/2 N125GH Gulfstream V; G-SHRS 737-8B5(BCF) BAe Systems, Warton diversion; D-CJMK Citation 560XLS+
17/2 D-CVMS PC-24; TC-FNH Challenger 650
18/2 D-IWIR CitationJet 525A CJ2
21/2 D-CEUS CitationJet 525C CJ4
25/2 SP-CIT CitationJet 525 CJ1

28/2 EJ-JMMM Global XRS; D-CAWX Citation 680 Sovereign+; D-CSRMCitationJet 525C CJ4
29/2 N900RH Gulfstream G550

London Luton

1/2 OY-GSA PC-12/45; N702QV Gulfstream V; N510SP Gulfstream IV-SP
2/2 N12MW Falcon 7X; 9H-NSV Global Express; N585G Gulfstream G500
4/2 N420LM Falcon 2000
5/2 N506KB Beech 350
7/2 VT-TEN Legacy 650; N182QS Global 7500 Netjets
9/2 N204A Gulfstream G550; 9H-OST Gulfstream G500; G-WUNC A321-271NX Wizz Air UK on delivery
11/2 N505XP Hawker 400XP
12/2 I-SAGE Hawker 400XP
13/2 T7-ALEX3 Global Express; VT-RIM Gulfstream G550
16/2 9H-EHB PC-12/47E; N519BH Gulfstream 650ER
19/2 D-AMAZ 737MAX-8 Tui Fly for maintenance
20/2 N15TM Gulfstream G450; N978CC Gulfstream IVSP; N898MJ Global 7500
21/2 9H-EHA PC-12/47E
22/2 N51BN Gulfstream G550
23/2 N669TT Global 6000
24/2 D-IXON CitationJet 525M2; P4-BAA Falcon 50EX
25/2 OO-HFH Citation 560XLS; OH-FUK PC-12NGX; N388FJ Falcon 2000LX; TC-MLR Global 5000; T7-ALEX1 Global 5000
26/2 N522NR BBJ2; C-GRTA Falcon 7X
27/2 N684MT Gulfstream G650ER; OE-LCD Global XRS
28/2 N68KP Global 6500

London Southend

2/2 T7-SYC Avanti 2
3/2 HB-JXE A320-214(SL) & HB-JYA A320-214 easyJet Switzerland both f/v
4/2 9H-NSV Global Express
5/2 D-AEWW A320-214(SL) Eurowings f/v, to Air Livery dep 18th; D-AEWQ A320-214(SL) Eurowings dep from Air Livery; 2-MSTG Citation 510 Mustang
6/2 N8220M Beech A36T Jet-Prop Bonanza
7/2 G-EZUP A320-214 easyJet f/v
8/2 OE-GBD Astra SPX
10/2 PH-CGV Falcon 2000LXS

KEY

f/v first visit
n/s night stop
o/s overshoot

12/2 D-CEXP Learjet 35A

15/2 ZZ507 Shadow R1+ 14 Sqn, RAF training; N77VA HondaJet

16/2 OE-LSK A320 easyJet Europe f/v

17/2 C-GFMX Dash 8-315 UK Home Office / PAL Aerospace f/v, Lydd diversion; D-CKYP Citation 550 Bravo; HB-JXA & HB-JYD A320-214s easyJet Switzerland both f/v

18/2 9H-EXT A319-112 Eurowings f/v, to Air Livery dep 3/3; OE-IVR A320-214(SL) easyJet Europe f/v; HB-AYR A320-251N easyJet Switzerland f/v

19/2 N902CL Citation 700 Longitude type f/v

21/2 D-ATWO Challenger 604; G-EZUN A320 A320-214 easyJet f/v

23/2 D-CAAG Phenom 300

24/2 HB-JXM A320-214(SL) easyJet Switzerland f/v

26/2 OE-LQW A319-111 easyJet Europe f/v

29/2 OK-RAH Beech 400XP

Manchester

1/2 TC-RDN A321-251NX Pegasus Airlines f/v; HB-JJN A320-214 Edelweiss Air f/v, ops for Swiss; G-KELT A320-251N(CJ) Acropolis Aviation f/v; 1224 C-17A United Arab Emirates Air Force tech stop; 1226 C-17A United Arab Emirates Air Force tech stop, n/s)

2/2 D-AIGP A340-313X Lufthansa f/v, medical diversion BOS-FRA

3/2 EI-IJK B737MAX-8200 Ryanair f/v; D-IMOI CitationJet 525 CJ1 f/v

5/2 OE-LZQ A320-271N Austrian Airlines f/v; ZK427 Typhoon FGR4 o/s after escorting SAS4609 in to land

6/2 EI-IJE 737MAX-8200 Ryanair f/v; OO-SFC A330-343E Brussels Airlines f/v, for maintenance at STS; N223A Gulfstream G550 f/v; TC-CGZ Citation 680A f/v

7/2 EC-OAS A321-251NX Iberia Express f/v; PH-HXI 737-800 Transavia f/v; OO-SFX A330-343E Brussels Airlines dep after maintenance at STS; OE-LUB Gulfstream G500 f/v

8/2 D-AMWO E190AR German Airways Leeds diversion, ops for KLM; G-UZLR A320-251N easyJet f/v; HB-AYE A320-251N easyJet Switzerland f/v; TC-RSA Challenger 605 f/v

9/2 D-AEED A321-251NX Eurowings f/v; CS-RLI Citation 560XLS+ f/v

11/2 OE-IDX A320-214(SL) easyJet f/v; G-DRTV 737-8AL Jet2.com dep for painting at EMA after 'Entry into Service' maintenance

12/2 EC-OCI A321-251NX Iberia Express f/v

13/2 SP-RNC 737-8AS Ryanair f/v

15/2 M-SEAO Citation 750 X f/v

17/2 9H-QEW 737-8AS Ryanair f/v; G-DRTX 737-8AL Jet2.com airtest, dep 20/2 for painting at EMA after 'Entry into Service' maintenance; A7-CGH Gulfstream G650ER f/v; N85MX Gulfstream G450 f/v; N599CE Global 6000 f/v

18/2 TC-SMN 737MAX-8 Sun Express f/v

20/2 9H-QEY 737-8AS Malta Air f/v

21/2 N620CM Citation 510 Mustang f/v; 9H-MAS Global 5500 f/v

22/2 M-INKE Gulfstream G600 f/v

24/2 TC-SML 737-MAX8 Sun Express f/v; N811TM Gulfstream G650ER f/v

25/2 M-ICKY Gulfstream G280 f/v; SP-UMA Citation 560XLS f/v

26/2 N70EL Gulfstream G600 f/v

27/2 OE-IDU A320-216(SL) easyJet f/v

28/2 HB-AYM A320-251N easyJet Switzerland f/v; I-AVNF Challenger 604 f/v

29/2 LY-FJI A320-232 Heston Airlines f/v, ops for Aurigny; M-LJCR Falcon 7X f/v

Teesside

2/1 9H-JPC Legacy 600

3/1 N288Z Gulfstream G650; OE-IXG Global 6000

5/1 OH-RBX Citation 560XL; P4-PPP Gulfstream IV

6/1 08-6205 & 09-5713 MC-130Js 67th SOS, 352nd SOW, USAF o/s

7/1 M-INTY Gulfstream G280

9/1 F-HATV Citation 680A Latitude

10/1 SP-ENG 737-8CX Enter Air

13/1 D-CAWK Citation 680A Latitude

14/1 M-CHEM Gulfstream G550

17/1 2-NGUS DA42NG; M-ANTA Gulfstream G200

19/1 N65WL Global Express; SP-ESB 737-8Q8 Enter Air; D-CAWR Citation 560 Encore+

20/1 OH-BSL PC-12/47E

22/1 N542AP Gulfstream G500

23/1 OY-JTP 737-79L Jettime; XZ334 Gazelle AH1 671 Sqn, AAC; 13-5776 MC-130J 67th SOS, 352nd SOW, USAF o/s

24/1 D-CAAM Do.228-212 Arcus Air; SX-RJB Citation 560XLS; EC-NIR Metro III Flightline

25/1 OE-IXG Global 5000

27/1 9H-CLD Falcon 100

29/1 N92FX Global Express

30/1 2-NGUS DA42NG.

3/2 D-CSOS Learjet 45 9/2 LY-FBL 737-8JP ferried to Ostrava for storage, arrived 28/12/23; SP-ATT Beech 400XP

11/2 D-AERO Legacy 650

14/2 D-IMFE CitationJet 525A CJ2+

17/2 D-CUNI Learjet 45; SP-TAT Beech 400XP; OE-HWM Gulfstream G280

18/2 ZH584 Merlin HM2 820 NAS, RN

20/2 HZ-MS4A Gulfstream G450 Saudi Medical Services n/s

23/2 OY-SYS Vulcanair P.68C BioFlight

25/2 ZZ399 & ZZ524 Wildcat AH1s 847 NAS, RN; ZH840 Merlin HM2 824 NAS, RN

28/2 D-CEUS CitationJet 525C CJ4

With thanks to: D Apps, D Bougourd, S Boyd, J Brazier, N Burch, P A Clarke, I Cockerton, KW Ede, M Farley, N French, P Gibson, G Green, J Gregory, I Grierson, D Haines, M Harper, G Hocquard, S Lane, S McDiarmid, G Morris, S Morrison, R Roberts, RJ Sayer, A Smith, D Turner, C Ward, Blackpool Aviation Society, Solent Aviation Society/'Osprey', South Wales Aviation Group, CIAN, GSAE, The Aviation Society, EGPE ATC, www.dtmovements.co.uk, Aerodata Quantum Plus and RHADS.

▼ This Avcon Jet Malta Gulfstream G500, 9H-OST (c/n 72044), visited London Luton on February 9. AirTeamImages.com/Martin Stovey



Airbus Helicopters H135, G-CMIT (c/n 2181), is one of five examples acquired to replace Army Air Corps Aerospatiale Gazelles in Northern Ireland. However, with the role considered redundant in 2023, and the aircraft were stored at RAF Shawbury, Shropshire, they have now been leased to the Australian Defence Force for a period of five years Airbus



The latest changes on the UK, Irish, Isle of Man and Guernsey registers

Restorations

Reg'n	Mode(S)	Type	C/N	Owner
G-BPIP	402D04	Slingsby T31 Motor Cadet III (built by JH Beard)	PFA 042-10771	RE Arnold, (Little Haywood, Staffordshire)
G-MTRX	402A09	Whittaker MW5 Sorcerer (built by W Turner)	PFA 163-11202	KR Emery, (Norton Canes, Staffordshire)
G-MYXB	403ABB	Rans S6-ESD Coyote II (built by A Aldridge)	PFA 204-12787	MJ Gaffney, (London NW10)
G-OLFZ	4056C0	P & M Quik GT450	8354	AJ Boyd, Newtownards, Co. Down
G-PCUB	40810C	Piper L21B Super Cub	18-3874	M Collenette, (Lymington, Hampshire)
G-POWV	407560	Airbus A321-211	3749	Titan Airways Ltd, London Stansted, Essex
G-RVEE	403738	Van's RV-6A	PFA 181-12262 (built by JCA Wheeler)	NC Stone, Eshott, Northumberland
G-TECH	401C56	Rockwell Commander 114	14074	Case Aviation Ltd, Southend, Essex

New Registrations

Reg'n	Mode(S)	Type	C/N	Owner
G-CKSF	405DBD	Lange Antares 18T	50T02	JR Klunder, (Brinscall, Lancashire)
G-CMTB	4080BC	Diamond DA50C	50.C.AA.060	Gemstone Aviation Ltd, Leeds East, North Yorkshire
G-CMTJ	4080FA	Van's RV-12iS	LAA 363A-15642	BG Guinea, (Colchester, Essex)
G-CMTN	408101	Van's RV-12iS	LAA 363A-15549	MJ Dooley, (Frinton-on-Sea, Essex)

G-CMTS	408108	CM Microlights Sunbird	SB2-001	CM Mitchinson, (Bradwell, Norfolk)
G-CMTZ	407E9D	Pipistrel Alpha BCAR-S 164A	AT164A0012	Fly About Aviation Ltd, Shipmeadow, Suffolk
G-CMUI	4080FB	Aeronca 11AC Chief	11AC-1364	IM Maddock, (Great Sankey, Lancashire)
G-CMVG	4080EB	Flylight Nine	DA280	CJ Farwell, (Box, Wiltshire)
G-CMVM	408103	Best Off Skyranger Nynja 912S(1)	BMAA/HB/751	S Rance, (Poole, Dorset)
G-COZE	404109	Rutan Cozy	PFA 159-11946	RS Goodwin, (Leigh, Worcestershire)
G-ERTA	408116	Pietenpol Air Camper (built by HM & J Thieron)	LAA 047-15015	HM Thieron, (Westhope, Herefordshire)
G-GACE	40806B	Flylight Nine	DA279	NG Stevens trading as Ace Aviation, (Burnham-on-Sea, Somerset)
G-HFLW	4080E6	Airbus MBB-BK 117 D-3	21263	Airbus Helicopters UK Ltd, Oxford, Oxfordshire
G-HITD	408100	Airbus AS350B3 Ecureuil	9523	Airbus Helicopters UK Ltd, Oxford, Oxfordshire
G-JERK	407FFB	Commonwealth CA-18 Mustang Mk.21	1435	Fighter Aviation Engineering Ltd, Sywell, Northamptonshire (NB actually a composite built from unidentified North American built P-51D components)
G-JLGE	408010	Gefa-Flug AS 105 GD	36	Magical Adventures Ltd, (Newton Blossomville, Bedfordshire)
G-JZDF	4080A4	Boeing 737-8H6	41768	jet2.com Ltd, Leeds-Bradford, West Yorkshire (NB)
G-LGCD	4021AD	Robin DR400/180R Remorquer	867	London Gliding Club Proprietary Ltd, Dunstable Downs, Bedfordshire

G-MIIO	407FED	Schempp-Hirth Ventus-3M	229MP	SG Jones, Membury, Berkshire
G-MOES	40810D	Van's RV-6	LAA 303-15666	MR Overall, Ostlers Farm, Wethersfield, Essex
G-NHVX	4080FE	AgustaWestland AW139	31386	NHV A/S, Norwich International, Norfolk
G-NJAF	4080CB	Dassault Falcon 2000EX	86	NetJets Europe Sociedade Unipessoal LDA, Farnborough, Hampshire
G-OSAX	408110	Pipistrel Virus SW121A	VSW121A0149	Chicken Roundabout Finance Ltd, Shipmeadow, Suffolk
G-PRKY	407C41	Van's RV-7 (built by D Koblet)	70463	NW Parkinson, RAF Weston-on-the-Green, Oxfordshire
G-PSPT	4080DD	TL Ultralight TL-2000 Sting S4	24 ST 511	Arts & Travel Ltd, (Lichfield, Staffordshire)
G-REGY	408115	Groppo Trail Mk.2	LAA 372-15441	TP Beare, (Ashwater, Devon)
G-TUGC	408056	Aeropro EuroFOX 2K (assembled by Ascent Industries Ltd)	69023	Ulster Gliding Club Ltd, Bellarena, Co. Londonderry
G-UBET	407D94	Eurocopter AS355N Ecureuil 2	5601	Balladoole Estate & Aviation Ltd, Liverpool John Lennon, Merseyside
G-UZLW	408051	Airbus A320-251N	11994	Easyjet Airline Company Ltd, London Luton, Bedfordshire (NB)
G-WAZE	4080CE	Leonardo AW109SP Grand New	22455	Sloane Helicopters Ltd, Sywell, Northamptonshire
G-WNDD	4080EF	Pitts S-1T Special (built by WJ Lynn)	LYNN-002	CK Aviation Services Ltd, (Fawley, Hampshire)
G-WUNC	40804E	Airbus A321-271NX	11715	Wizz Air UK Ltd, London Luton, Bedfordshire (NB)
G-XWBS	407FCD	Airbus A350-1041	652	British Airways PLC, London Heathrow, Middlesex
EI-FFA	4CAE7D	Boeing 737-8K5	38097	Fly4 Airlines Green Ltd, Dublin, Co. Fingal (NB)
EI-HAE	4CACA3	ATR-42-212A(F)	1759	ASL Airlines (Ireland) Ltd, Dublin, Co. Fingal (NB)
EI-HAF	4CAE73	ATR-42-212A(F)	1760	ASL Airlines (Ireland) Ltd, Dublin, Co. Fingal (NB)
EI-HLZ	TBA	Best Off Skyranger 912(2)	591	Private Individual (Co. Westmeath)

EI-HMG	TBA	Tomark Viper SD-4 RTC	38827	Airport Flying Club 2022 Company Limited by Guarantee, Newcastle, Co. Wicklow
EI-HXD	4CAE1A	Airbus A321-271NX	11781	ALC Clover Ireland Ltd (operated by ITA Airways, Rome Ciampino, Italy)
EI-IJI	4CAE59	Boeing 737-8200	62369	Ryanair DAC, Dublin, Co. Fingal (NB)
EI-IJL	4CAE61	Boeing 737-8200	67110	Ryanair DAC, Dublin, Co. Fingal (NB)
EI-PIA	Not Allotted	Ozone Power Spyder 3	SD326.V.23D.122	Private Individual, (Co. Cork)
EI-SKU	TBA	Piper PA-28RT-201 Arrow IV	28R-7918145	Private Individual, Cork, Co. Cork
M-ABSL	424C4E	British Aerospace BAe 146-RJ100	E3384	Flightspares Pty Ltd, Cranfield, Bedfordshire
M-JHCI	424C57	Cessna 525C CitationJet CJ4	525C0134	Dowdeswell Aviation Ltd, Gloucestershire
M-OMMR	424C53	Dassault Falcon 50EX	274	Oomrang Air LLC, Burlington-Skagit Regional, Washington, USA
2-CALC	TBA	Airbus A320-232	7988	ZF Ireland Aircraft 51 Ltd, (stored Clark International, Philippines)
2-CLPI	TBA	Sikorsky S-92A	920092	Wilmington Trust SP Services (Dublin) Ltd, (Dublin, Republic of Ireland)
2-GEOS	TBA	Boeing 737-8EH	35842	AWAS 35842 Trust (stored Miami-Opa Locka, Florida, USA)
2-IBAT	TBA	Boeing 737-9GP	35711	WWTai AirOpCo 1 Bermuda Ltd (stored Antalya, Turkey)
2-IBAZ	TBA	Boeing 737-9GP	35717	Alterna Aircraft VIII LLC, (stored, Antalya, Turkey)
2-NNOI	TBA	Boeing 737-86N	36820	AWAS 36820 Trust, (stored Baghdad, Iraq)
2-NNOO	TBA	Boeing 737-8U3	30142	DAE 3 SPC Ltd, (stored, Antalya, Turkey)
2-NNPP	TBA	Boeing 737-8U3	30141	DAE 3 SPC Ltd, (stored, Antalya, Turkey)
2-NNWW	TBA	Boeing 737-8U3	39427	AWAS 2012 Leasing Ltd, (stored, Antalya, Turkey)
2-RAQB	TBA	ATR-72-2121A	1054	NAC Aviation 8 Ltd, (stored Mönchengladbach, Germany)
2-RLMT	TBA	Embraer 190-E2	19020016	Sport Aviation LLC, (for Placar Linhas Aereas, Sao Paulo, Brazil)
2-VNJA	TBA	Airbus A320-232	7378	Wings Aviation 7378 Ltd, (stored Kuala Lumpur, Malaysia)
2-WACA	TBA	Airbus A320-214	648	Wright Aero Components FZE, (stored at Phnom Penh International, Cambodia)
2-ZAMK	TBA	Airbus A320-214	4655	Wells Fargo Trust Company NA, (stored at Lake City Gateway, Florida, USA)

Previous Identities

Reg'n	Previous Identity	Reg'n	Previous Identity
G-CKSF	ex D-KANH	EI-HXD	ex D-AZYU
G-CMUI	ex N281A	EI-IJI	ex N4027T
G-JERK	ex VH-MFT	EI-IJL	ex N4022T
G-JLGE	ex EC-JLG	EI-SKU	ex G-PTCC
G-JZDF	ex TC-CPZ	M-ABSL	ex VH-NJE
G-LCGD	ex G-EHMM	M-JHCI	ex G-SDRY
G-NHVX	ex 5N-BOX	M-OMMR	ex N956MR
G-NJAF	ex CS-DLL	2-CALC	ex VN-A577
G-POWV	ex 9H-ZTA	2-CLPI	ex G-CLPI
G-PRKY	ex HB-YDK	2-GEOS	ex LZ-DCS
G-UBET	ex G-NMCF	2-IBAT	ex YI-BAT
G-UZLW	ex F-WWBK	2-IBAZ	ex YI-BAZ
G-WAZE	ex I-PTFO	2-NNOI	ex YI-BAX
G-WNDD	ex N202WL	2-NNOO	ex YI-BAW
G-WUNC	ex D-AZWN	2-NNPP	ex YI-BAV
G-XWBS	ex F-WZND	2-NNWW	ex YI-BAS
EI-FFA	ex G-TUKM	2-RAQB	ex PR-AQB
EI-HAE	ex F-WWEM	2-RLMT	ex 9S-AET
EI-HAF	ex F-WWEN	2-VNJA	ex VN-A566
EI-HLZ	ex PH-3Z4	2-WACA	ex XU-112
EI-HMG	ex OM-BOY	2-ZAMK	ex N841VA

▼ Fighter Aviation's latest acquisition, a Commonwealth CA-18 Mustang, has been placed on the UK register as G-JERK reflecting its new identity, Jersey Jerk Matthew Wilkinson





Cancellations

Reg'n	Type	C/N	Reason
G-AIYG	Stampe SV4B	21	To Belgium
G-APCC	de Havilland DH82A Tiger Moth	86549	Cancelled by CAA (CofA expired 18.06.16, last noted at Quebec Farm, Knook 04.16)
G-AWHY	Falconar F.11-3	PFA 1322	Cancelled as Permanently WFU (substantially damaged when it force landed at North Hill, Devon and hit sheep on landing 07.10.11)
G-AYUH	Piper PA-28-180 Cherokee F	28-7105042	Cancelled as Destroyed (Fatal crash into a field near Stanley Hall, off Pebmarsh Road, near Halstead, Essex 21.08.23)
G-AZVG	American Aviation AA-5 Traveler	AA5-0075	Cancelled by CAA (CofA expired 25.12.18, last reported at Solent, Hampshire 11.23)
G-AZYA	Sud Aviation GY80-160 Horizon	57	Cancelled by CAA (CofA expired 04.06.08, was based in Portugal)
G-BKIF	Fournier RF6B-100	3	Cancelled as Destroyed (force-landed on the central reservation of the A40 at Church Down Farm, Chichester, West Sussex 10.08.23)
G-BTVE	Hawker Demon I	---	Sold in USA as N1HD
G-BUPC	Rollason Beta B2	PFA 002-12369	Cancelled as Permanently WFU (extensively damaged in ground-loop at Clutton Hill Farm, near Bristol 12.09.02)
G-BUWF	Cameron N-105	3036	Cancelled by CAA (CofA expired 15.01.21)
G-BVEA	Mosler Motors N3 Pup	PFA 212-11837	Cancelled by CAA (SSDR microlights so no Permit to Fly required, last noted at Wickenby, Lincolnshire 07.20)
G-BVUG	Betts TB1	PFA 265-12770	Cancelled by CAA (Permit to Fly expired 28.11.12, last noted at Little Gransden, Cambridgeshire 07.21)
G-BVXA	Cameron N-105	3441	Cancelled by CAA (CofA expired 19.03.05)
G-BYYM	Raj Hamsa X'Air 582(2)	BMAA/ HB/119	Cancelled by CAA (Permit to Fly expired 28.09.21, last noted at Beccles, Suffolk 08.21)
G-BZAK	Raj Hamsa X'Air 582(9)	BMAA/ HB/114	Cancelled as Permanently WFU (Permit to Fly expired 20.09.19)
G-BZEJ	Raj Hamsa X'Air 582(7)	BMAA/ HB/134	Cancelled by CAA (landed short of runway at Wolverhampton Halfpenny Green, Staffordshire 29.05.23)
G-CCFA	Air Creation Kiss 400-582(1)	BMAA/ HB/282	Cancelled by CAA (Permit to Fly expired 03.09.22)
G-CCKM	Mainair Pegasus Quik	7985	To Philippines
G-CCOT	Cameron Z-105	10517	To Poland
G-CFFA	UltraMagic M-90	90/55	
G-CHBB	Schleicher ASW-24	24132	Cancelled as Destroyed (fatal crash on take-off at Dunstable Downs, Bedfordshire 16.08.23)
G-CIHN	Cameron Z-120	11785	To Mexico
G-CIIX	UltraMagic M-105	105/203	To Lithuania
G-CIKO	AgustaWestland AW139		41378
G-CIOS	MD Helicopter MD900 Explorer	900-00103	To Belgium as OO-CIO
G-CJPN	Cessna 152	152-80337	Cancelled as Permanently WFU (crashed at Cumbernauld, North Lanarkshire 14.02.22)
G-CKPS	Aerospatiale AS350B2 Ecureuil	2109	To Cote d'Ivoire
G-CLPI	Sikorsky S-92A	920092	To Guernsey as 2-BLPI
G-CMRX	Cameron Heart-170	12658	To Lithuania
G-CNWL	MD Helicopter MD900 Explorer	900-00124	To Belgium
G-DBTJ	Schleicher Ka.6CR Rhonsegler	6367	Cancelled by CAA (CofA expired 05.06.20)
G-DCTX	PZL-Bielsko SZD-30 Pirat	B-527	Cancelled by CAA (CofA expired 22.04.20)
G-DDVH	Schleicher Ka.6E	4117	Cancelled by CAA (CofA expired 01.01.12, broken up for spares)
G-EHEM	MD Helicopter MD900 Explorer	900-00134	To Belgium
G-EHMM	Robin DR400/180R Remorquer	867	Re-registered as G-LGCD
G-EMEE	Sikorsky S-92A	920158	To Norway as LN-OQV
G-EZAY	Airbus A319-111	2827	Cancelled as Permanently WFU (CofA expired 12.11.23, flown London Gatwick t Teesside, Durham for parting out 28.09.23)
G-EZBF	Airbus A319-111	2923	Cancelled as Permanently WFU (CofA expires 109.07.24, flown London Gatwick t Teesside, Durham for parting out 23.10.23)
G-GAID	Cessna 182T Skylane	18282386	To Austria
G-GBHI	SOCATA TB10 Tobago	19	Cancelled as Permanently WFU (CofA expired 06.10.22, Parted out for spares)
G-GEOF	Pereira Osprey 2	PFA 070-10384	Cancelled as Permanently WFU (No Permit to Fly issued, believed not completed)
G-HITM	Raj Hamsa X'Air Jabiru(1)	BMAA/ HB/112	Cancelled by CAA (crashed near Cyfronydd, Welshpool, Powys 13.06.23)
G-IIXX	Parsons Two Place Gyroplane (Modified)	PFA G/08-1225	Cancelled as Permanently WFU (No Permit to Fly issued. Displayed at Highland Aviation Gyrocopter Museum, Inverness, Highland)
G-IIYY	Cessna 421C Golden Eagle III	421C0621	To USA as N421HS
G-JEJE	RAF 2000 GTX-SE		PFA G/13-1352

G-KADS	Schempp-Hirth Ventus-2cT	231	Cancelled as Destroyed (Fatal mid-Air collision with Lange Antares G-CLXG over Melton Mowbray 12.08.23, crashed in Roundhouse Housing Estate)
G-LGNA	SAAB 340B	340B-199	To USA as N199JL
G-LGNJ	SAAB 340B	340B-173	To USA as N981ES
G-MIGG	PZL-Mielec Lim-5	1C1211	Cancelled by CAA (sold in Poland 11.23)
G-MMGS	Solar Wings Panther XL	T1283939 XL	Cancelled as Permanently WFU (Permit to Fly expired 24.04.08)
G-MNMK	Solar Wings Pegasus XL-R	SW-WA-1035	Cancelled as Permanently WFU (Permit to Fly expired 22.06.15)
G-MTRX	Whittaker MW6 Sorcerer	PFA 163-11202	Cancelled by CAA (but restored again later in month)
G-MVSE	Solar Wings Pegasus XL-Q	SW.WQ-0196	Cancelled as Permanently WFU (Permit to Fly expired 04.09.22)
G-MZGM	Cyclone AX2000	7334	Cancelled as Permanently WFU (Permit to Fly expired 12.11.15)
G-MZJE	Mainair Rapier		Cancelled as Permanently WFU (Permit to Fly expired 22.03.21)
G-NHVL	Airbus EC172B	5057	To Malaysia
G-NMCF	Eurocopter AS355N Ecureuil 2	5601	Re-registered as G-UBET

Updates and Corrections

Reg'n	Details
G-BAGN	Became F-HMTY 08.02.24
G-BOFE	Became F-HGGB 31.01.24
G-BXVA	Became F-GJXL 29.01.24
G-CCNJ	Type officially changed to a Skyranger Swift 912(1) 12.02.24
G-CGFH	Became SE-LPN 28.02.24
G-CIMO	Became HA-1086 03.12.20
G-CMFH	Became PH-OLT 13.02.24
G-CMIR	Type officially changed to an Airbus EC135 T3H 23.02.24
G-CMIS	Type officially changed to an Airbus EC135 T3H 23.02.24
G-CMIT	Type officially changed to an Airbus EC135 T3H 23.02.24
G-CMIU	Type officially changed to an Airbus EC135 T3H 23.02.24
G-CMIV	Type officially changed to an Airbus EC135 T3H 23.02.24
G-EZAS	Became LY-BNL 01.24
G-GDMW	Became HA-PMG
G-JBBB	Became D-HAWK 06.23
G-LBRT	Became N17CV 25.01.24
G-MEDM	Became D-AATD 21.12.23
G-MEDN	Became D-AATE 02.24
G-MVFF	Type officially changed to a Pegasus XL-Q (Modified) 02.02.24
G-NHVB	Manufacturer officially changed to Agusta Aerospace Philadelphia Corporation 19.02.24
G-NWAA	Type officially changed to an EC135 T2+ 29.02.24
G-OGSE	Became VP-CMS
G-PHSV	Became PH-RSV
G-PJCM	Manufacturer officially changed to Agusta Aerospace Philadelphia Corporation 19.02.24
G-PJCN	Manufacturer officially changed to Agusta Aerospace Philadelphia Corporation 19.02.24
G-PJCS	Manufacturer officially changed to Agusta Aerospace Philadelphia Corporation 19.02.24
G-PTCC	Became EI-SKU 02.02.24
G-SZDA	Became LN-GQB
G-TFSI	Became N151CB 15.02.24
G-XONE	Became C-FKNN 30.12.23
EI-HOA	Type officially changed to an Airbus A320-272N 02.24
EI-HOB	Type officially changed to an Airbus A320-272N 02.24
2-APAC	Became TR-LJR 22.06.23
2-BPDY	Became SU-SFY 11.23
2-COLD	Became CC-DKL
2-GJSA	Became VQ-TSM
2-JGAF	Became ZS-YZB 12.23
2-KCMQ	Became PK-BBF 25.01.24
2-RFZA	Became 5Y-SKC 18.01.24
2-RIOH	Reserved as N2548T
2-SSJF	Became TC-MGO 16.02.24
2-TKQA	Became EZ-A781
2-TKQB	Became EZ-A782
2-TSUU	Became VT-SJU 02.24
2-UTMH	Became LY-BBN
2-VSLO	Became RP-C509 25.01.24
2-VSLR	Became 70-AFF

G-NUNI	Lindstrand LBL 77A	1181	Cancelled by CAA (CofA expired 25.07.20)
G-PEEE	Van's RV-7	70463	Re-registered as G-PRKY
G-PRPB	Bombardier DHC-8-402	4333	To Nigeria as 5N-CCS
G-SDRY	Cessna 525C CitationJet CJ4	525C0134	To Isle of Man as M-JHCI
G-SGSG	Bombardier Global 5000	9780	To San Marino as T7-NEX
G-SHAA	Enstrom 280-UK Shark	1011	To USA
G-SNOG	Air Creation Kiss 400-582(1)	BMAA/HB/219	Cancelled as Permanently WFU (crashed on take-off at Deenethorpe, Nottinghamshire 13.06.23)
G-THRE	Cessna 182S Skylane	182-80454	To France
G-TOTN	Cessna 210M Centurion	210-61674	Cancelled as Destroyed (fatal crash into a cliff at Bradda Head, Isle of Man 17.07.23)
G-TUKM	Boeing 737-8K5	38097	To Republic of Ireland as EI-FFA
G-WNSE	Sikorsky S-92A	920190	To Brazil as PR-CPX
G-WUKH	Airbus A321-231	8600	To United Arab Emirates as A6-WAH
G-XINE	Piper PA-28-161 Warrior II	28-7716112	To USA
G-XXEC	Agusta A109S Grand	22104	To India
G-YPSE	Airbus EC130 T2	9175	To USA as N684JB
EI-DLH	Boeing 737-8AS	33590	To Poland as SP-RNK
EI-EBM	Boeing 737-8AS	35002	To Poland as SP-RND
EI-EKE	Boeing 737-8AS	35023	To Poland as SP-RNE
EI-HKX	Boeing 737-8GJ	41397	To USA as N41397
EI-HMH	Boeing 787-9	62735	To Austria as OE-LPL
EI-HMI	Boeing 787-9	62736	To Austria as OE-LPM
EI-RDH	Embraer 175	17000339	To USA as N486FM
EI-STK	Boeing 737-448(SF)	25052	To USA as N250FF
M-AHAA	Bombardier Global 7500	70127	To San Marino as T7-MAHA
M-ABPH	ATR-72-212A	1174	To USA as N1174
M-KNOX	Cessna 525C CitationJet CJ4	525C0343	To Brazil
2-KJPE	Boeing 737-8AS(BCF)	33550	To Brazil as PP-YBE
2-MOVE	Boeing 737-382(QC)	24364	Cancelled at owner's request (parted out at Bournemouth, Dorset 11.23)
2-MREF	Airbus A320-214	3221	To Latvia as YL-LDX
2-MRNO	Airbus A320-214	3225	To Latvia as YL-LDW
2-SNOW	Piper PA-46-350P Malibu Mirage	4636180	To USA as N4RX
2-SSJN	Boeing 737-85F	30569	To Turkey
2-STNA	Airbus A340-642	677	Cancelled at owner's request (parted out at Taiyuan Wusu International, People's Republic of China 12.23)

Key: NB – Nominal Base. A place name in brackets relates to the owner's address, as where the aircraft is based is unknown.

▼ Former ASL Airlines Ireland Boeing 737-400F, EI-STK (c/n 25052), has been transferred to the US registry as N250FF ahead of joining Mexican carrier Aeronaves TSM AirTeamImages.com/Paul Buchroeder





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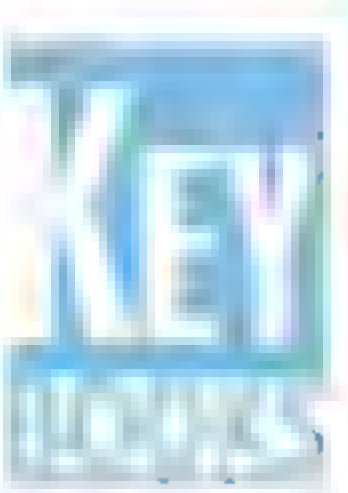
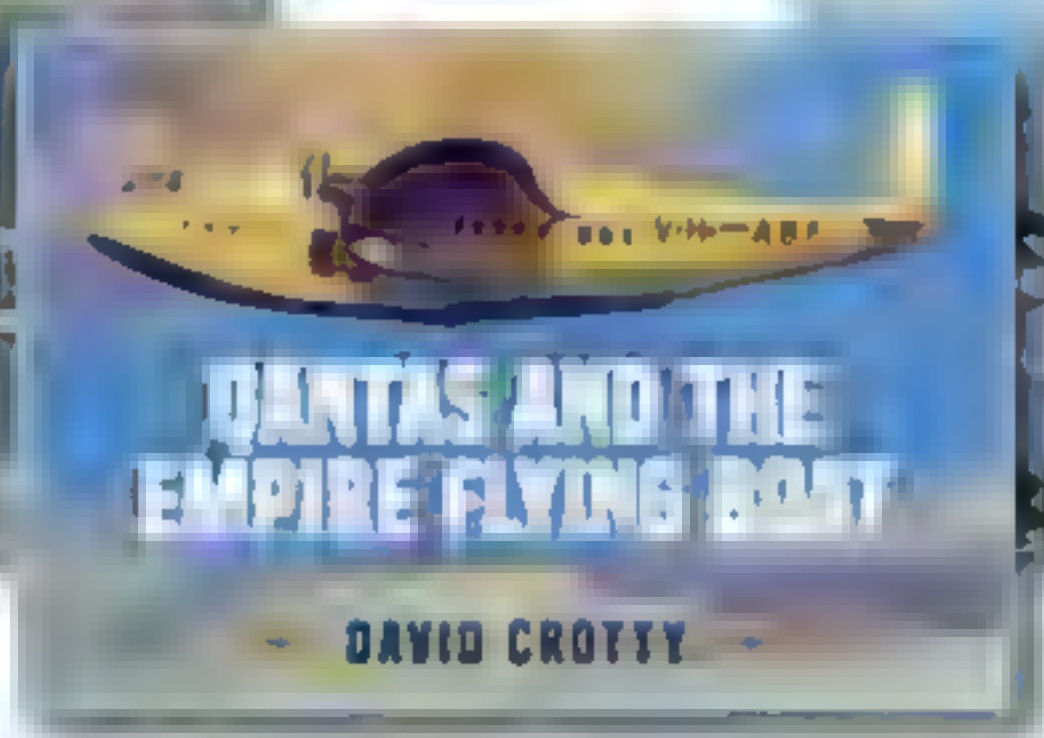
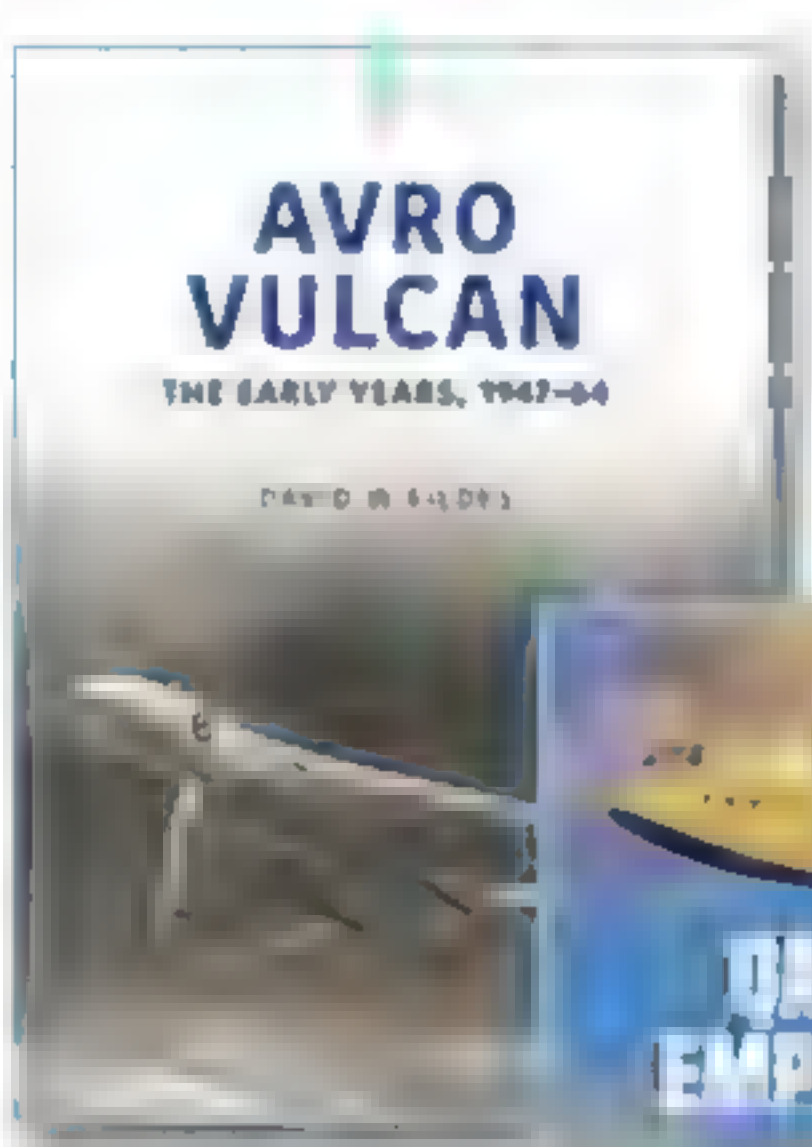
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East End E-Jets

Embraer jets are a staple at London City Airport. Who operates them, where do they fly to, and what of the future? **Mark Broadbent** reports

London City has become 'Embraer central' in recent years, with the Brazilian manufacturer optimising its aircraft for the Docklands hub AirTeamImages.com/ Matthias Gelgen

Spend any time around London's Docklands area and you'll see Embraer E-Jets arriving into and climbing out of London City Airport. It is as familiar a part of everyday life in that area of the capital as the skyscrapers of nearby Canary Wharf.

London City Airport's runway measures just 4,948ft (1,508m). Commercial aircraft operating into the East End need to be able to undertake steep descents

– at an angle of up to 5.5° along the ILS glideslope – and the Brazilian regional jet has become the mainstay of operations at the airport.

E-Jets in the liveries of British Airways CityFlyer, Helvetic Airways, KLM Royal Dutch Airlines, LOT Polish Airlines and Lufthansa Regional all operate at London City day-to-day.

City operations

When London City Airport opened back in October 1987, it only had a 1,080m-long (3,543ft) runway and a glidepath angle of 7.5°. Consequently, only a few turboprop aircraft – initially the Bombardier Dash 7 and Dornier 228 – were permitted to operate there.

Airport management submitted a planning





◀ Embraer's E195-E2 is the largest aircraft to have operated from London City Airport

“Spend any time around London’s Docklands area and you’ll see Embraer E-Jets arriving into and climbing out of London City Airport”

application in 1989 to extend the runway. The plan was approved and, together with a reduced glidepath angle (from 7.5° to 5.5°), London City opened to regional jets. A Crossair British Aerospace 146 was the first jet to operate from the airport in March 1992.

BAe 146s and Avro RJs subsequently became par for the course at London City in the 1990s and 2000s thanks to operators such as Air France (on lease from CityJet), British Airways CityFlyer, Buzz, Crossair (later Swiss International Air Lines), Lufthansa, Sabena (later Brussels Airlines) and SAS (on lease from Transwede Airways).

These, and other carriers, helped to increase the airport’s passenger numbers from 500,000 in 1995 to 1.5 million five years later, and then grow further to 1.9 million in 2005 and 2.7 million in 2010.

The Airbus A318 was cleared to operate from London City, enabling British Airways to begin an all-premium-class service to New York/JFK using the former Concorde flight number BA001 – the

▶ BA CityFlyer – which boasts an all-E-Jet fleet – is the most dominant operator at London City
All images London City Airport unless stated





LOT Polish Airlines E190s currently connect London City with Vilnius, Lithuania

Proximity to The City and the Docklands means business travellers have long been London City's primary customer base

'banker's shuttle' as it was colloquially known, in reference to executives from the financial district of the Docklands, adjacent to London City, who were the clientele on the route.

Brazilian newcomer

BA's intercontinental A318 flight from London City caught the eye for sure (although the carrier stopped flying it in 2016 after just seven years' operation). However, it was the shorter-haul services to Europe with the E-Jet that became a cornerstone of operations at the East End airport.

Embraer launched the E-Jet family at the June 1999 Paris Air Show. The baseline 72-78-seat E170 model flew in February 2002 and entered service with LOT Polish Airlines in March 2004. It was followed by the slightly larger 78-88 seat E175 (first flight in June 2003, service entry in July 2005 with Air Canada), the further-stretched 100-114-seat E190 (first flight

in March 2004, service entry with JetBlue Airways in September 2005) and 116-124-seat E195 (first flight in December 2004, service entry with Flybe in September 2006).

The E-Jets struck a chord with airlines worldwide as they offered superior economics compared to previous generations of regional jets. Crucially with regard to London City, the E170 received steep approach certification from the European Union Aviation Safety Agency (EASA) for operations there in 2007; the E190 followed suit after validation trials at the airport two years later.

BA CityFlyer

The Steep Approach certifications encouraged several operators at London City that had ordered the type could fly from the Docklands with the newer, leaner and more efficient aircraft.

In 2008, British Airways CityFlyer – a wholly-owned subsidiary of BA, but operating entirely independently of the parent company with its own management board – ordered 11 E-Jets specifically for use at London City, comprising six E170s and five E190s.

The E-Jets would replace CityFlyer's ageing fleet of ten Avro RJ100s and two RJ85s on the carrier's routes out of London City to destinations in Scotland, Ireland and Western Europe, improving fuel efficiency and reducing carbon dioxide emissions.

Five of the E170s had been formally handed over to BA CityFlyer by the end of 2009, although crew training schedules meant that a short-lived Swiss regional airline, Baboo, actually had the distinction of operating the first E-Jet service into London City. Baboo flew one of its three E190s there from Geneva on February 10, 2010, around a month before BA CityFlyer conducted its first E190 service, using G-LCYJ (c/n 19000339), from London City.





▲ More E-Jets arrived at London City in the 2010s, coinciding with the further development of the airport and the surrounding area

“London City became busier in the 2010s – and flights with the E-Jets were a key part of helping passenger numbers to grow”

Downtown E-Jets

BA CityFlyer had five E190s in service by the end of 2010, with further deliveries thereafter. By late 2013, the carrier had 14 E-Jets in service – a mixture of E190s and E170s – and a further E190 on order.

Adam Carson, managing director of BA CityFlyer at the time, commented: “The Embraer 190 is a very versatile aircraft and well-suited to BA CityFlyer’s network ambitions. Given its mid-range capabilities, it ably supports our plans to fly new routes and increase frequencies on existing ones. Delivering terrific performance, and with an excellent climb rate and superior environmental qualities, the E190 is proving ideal for our London City operations.”

BA CityFlyer was satisfied with the E190 to the point that later, in August 2018, the carrier ordered four more examples from Embraer. Additional aircraft enabled the carrier to expand connections from the downtown airport, opening new routes – including to Rome – and adding capacity on existing services such as increasing its Zurich services to five times daily.

By the late 2010s, BA CityFlyer was also using London City-based E-Jets on services from London/Stansted and seasonal services from Birmingham, Bristol, Edinburgh and Manchester to Mediterranean destinations, although the routes from Bristol and Edinburgh were later pulled.

As BA CityFlyer steadily built its fleet in the 2010s, E-Jets started to appear at London City in the liveries of other operators, as they refreshed their regional jet fleets.

For example, KLM Royal Dutch Airlines (via its KLM Cityhopper unit) started E190 flights to London City from Amsterdam/Schiphol in 2016, with four flights on weekdays and two daily at weekends. Lufthansa CityLine introduced E190 services from Frankfurt. Alitalia put on flights to Milan/Linate and LOT Polish Airlines a link to Warsaw.

E-Jet flights from LCY

E-Jet flights helped London City’s passenger numbers grow considerably as the decade went by – from 3 million in 2011, to 4.3 million in 2015,



► A BA CityFlyer Embraer 170 lands at its home base – the carrier withdrew the type in 2021 as the COVID-19 recovery began

and 5.1 million in 2019.

The COVID-19 pandemic causing the air travel shutdown in 2020/21, of course, meant passenger numbers at the airport collapsed – to 905,326 in 2020, and further still, to 713,969 in 2021.

Post-pandemic rationalisation led BA CityFlyer to withdraw its E170s from service and focus operations on the E190. It had 20 examples in service at the time of writing in March 2024, having added a further six jets in 2020/21 to supplement the 14 delivered in the 2010s.

Commercial air transport has recovered in the past couple of years – passenger numbers at London City were up to 2.9 million in 2022 and 3.4 million last year. And the E-Jet is playing a key role in the rebuild as it now accounts for 95% of all operations at the airport.

London City's proximity to the capital's financial districts in The City and the Docklands means business travellers have long been the airport's primary customer base – and these traffic characteristics are fully reflected by the routes the E-Jets operating at London City fly.

At the time of writing in March 2024, these include the BA CityFlyer services to Belfast, Berlin, Dublin, Edinburgh, Frankfurt, the Isle of Man, Milan and Zurich. KLM Cityhopper uses its E-Jets to link to Amsterdam, Lufthansa serves Frankfurt, and LOT Polish Airlines now operates to Vilnius, Lithuania.

Some of the weekly flights to Milan by ITA Airways (the successor to Alitalia) from London City were initially served with E190s, although the airline now uses Airbus A220s. Flights to Zurich by Swiss International Air Lines have also moved to A220s but Helvetic Embraers continue to make appearances at City through its contract with Swiss.

As well as the 'bread and butter' services to business destinations, a noticeable aspect of E-Jet operations out of London City just now is the number of services to points around Europe beyond those traditionally associated with the airport.



In its summer 2024 schedule, CityFlyer is operating its E190s on various leisure routes from London City including Bergerac, Chambéry, Faro, Florence, Ibiza, Malaga, Mykonos, Nice, Palma, Prague, Salzburg, San Sebastian, Skiathos, Split and Thessaloniki.

Enter the E2

Embraer launched the E-Jets E2 range at the 2013 Paris Air Show, joining the wider industry trend of 're-engining' proven airliners with more efficient turbofans. There is the baseline E190-E2, stretched E195-E2 and shortened E175-E2 (the smallest first-generation E-Jet as the E170, was not included in the upgrade).

The E190-E2 received its steep approach certification to operate at London City Airport in July 2021. Two months later, a Helvetic Airways aircraft (HB-AZG) arrived from Zurich operating Flight LX 464 on behalf of Swiss.

After the E190-E2's debut, in July 2022 Embraer's demonstrator E195-E2 PR-ZJK – in the distinctive all-black 'Profit Hunter' livery – undertook a proving flight into London City after departing the Farnborough Airshow, to demonstrate the variant's steep-approach capability and undertake ground handling tests.

In November 2023, Embraer announced that

▲ While Swiss moved from the Avro RJ100 to the Bombardier C Series (now Airbus A220), Helvetic Airways Embraer E1s and E2s appear at London City on Swiss services Martin Needham

“The E195-E2's noise footprint at take-off is around 60% smaller than current jet aircraft, such as the E190”



◀ London City Airport became accessible to jets in the early 1990s when its sole runway was extended



the European Union Aviation Safety Agency had awarded the E195-E2 the Steep Approach certification for operations into London City – meaning both in service E-Jet E2 variants are now approved to use the airport.

An Embraer statement said the certification highlights the E195-E2's "impressive noise reduction among new generation single-aisle aircraft", noting: "It surpasses the requirements of ICAO's strict Chapter 14 regulation, thereby offering a significantly quieter flying experience compared to the previous E195 model. The E195-E2's noise footprint at take-off is around 60% smaller than current jet aircraft, such as the E190, and will bring benefits to local residents in terms of noise reductions."

New capabilities

The E190-E2/E195-E2 both have more range than the first-generation E-Jets. The E190-E2 can fly 2,850 nautical miles (5,275km) compared to the E190's 2,450nm (4,537km), and the E195-E2 can do 2,600nm (4,815km), up from the E195's 2,300nm (4,260km).

This obviously extends operators' capabilities, and it puts slightly further-flung destinations – examples might include Istanbul and Casablanca – within reach of London City for the first time.

Alison FitzGerald, Chief Operating Officer, London City Airport, said "the certification of the E195-E2 signifies an exciting new era" for the airport, because it can handle more passengers while being "significantly quieter and more fuel efficient... we eagerly anticipate our airlines starting commercial operations with the E195-E2".

KLM Cityhopper is an E195-E2 operator and it is widely anticipated that it will 'up-gauge' its route

from Amsterdam/Schiphol to London City with the aircraft from the E190.

Meanwhile, the E2 variants' approvals to fly into the East End inevitably raise the question of whether BA CityFlyer, the main E-Jet operator at the airport by some margin, might seek to 're-fleet' with the new aircraft – and introduce the larger-capacity E195-E2.

FlightGlobal quoted the airline's CEO Tom Stoddart saying in September 2023 the airline would "no doubt" require a new-generation aircraft at London City but that it was "unlikely" to introduce any new type before 2025:

"You have to be confident you're going to fill those seats," Stoddart said. "We need to see how the market recovers over the next couple of years before we make that decision."

Even so, the E-Jets' continued presence in London's East End seems assured.

▲ London City became busier in the 2010s – and flights with the E-Jets were a key part of helping passenger numbers to grow

▼ BA CityFlyer E190s currently connect London City with Belfast, Edinburgh and the Isle of Man on domestic services



Next Month



Diamond nine's diamond anniversary

We take a look at the RAF Red Arrows as they embark on their 60th display season

Mixing electricity and water

Aviation News heads to Canada to learn about Harbour Air's ongoing efforts to become the world's first all-electric airline

Onboard the ARJ21

We step on board one of two COMAC ARJ21-700s in service with Indonesia's TransNusa Airlines to sample the Chinese-built airliner

Britten-Norman's big birthday

We chart the history of Britten-Norman – the UK's last major aircraft manufacturer – and take a behind the scenes look at operations of its most famous product – the BN-2 Islander – with the Falkland Islands Government Air Service



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